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Translation

Net Product and National Income of a Union Republic

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NET PRODUCT AND NATIONAL INCOME OF A UNION REPUBLIC

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[Brief Annotation]

[Text] The monograph reviews the theoretical and methodological problems related to an analysis of net product in an Union republic and its balancing with national income. The use of the method of aggregate national economic accounts is established, and these provide for the creation of an integrated system of balances. Particular attention has been given to the stage of the distribution and redistribution of national income in an Union republic. The theoretical provisions are illustrated by an analysis of statistical data for Latvia.

The book is designed for scientists, graduate students, specialists in the area of political economy, statistics and national economic planning, as well as for students of the economic specialties in the VUZes.

FOREWORD

The proportions of social reproduction have always been at the center of attention for Soviet economic science. In the stage of developed socialism, when the enormous scale of production, rapid scientific and technical progress and the deepening of international economic integration between the socialist countries make the national economic proportions even more dynamic, economic science and planning practices are confronted with the crucial tasks of increasing the balancing of the economy. Dynamic and proportional development were termed by the 25th CPSU Congress a prerequisite for carrying out the main economic task of the Tenth Five-Year Plan for the development of the USSR national economy, and for consistently implementing the policy of the Communist Party to raise the material and cultural standard of living of the people.

All the Union republics of the USSR interact in carrying out this basic task, and with a greater division of labor between them and a rise in production specialization, the combining of sectorial and territorial proportions becomes more complex, and this necessitates an improvement in the methodology and procedures for working out the national economic balance of the Union republics.

The author considers the basis for the proportional development of the economy of an Union republic to be the balancing of net product and its value form, the republic's income. The monograph discloses the essence of the category of net product and the methodological problems of its calculation and analysis. The use is established of a system of accounting and planning following a scheme of national economic accounts and an aggregate material and financial balance as worked out by the TsEMI [Central Mathematical Economics Institute] of the USSE Academy of Sciences and tested out experimentally in Estonia. The designated scheme reflects all national economic turnover of gross and net product in the form of the monetary and commodity flows, and provides for the elaboration of an integrated system of the national economic balance. In our view, such a system has advantages over the presently used one, and should be introduced into practice in the further elaboration of automated systems for state statistics and planning calculations.

The balancing of the development of a socialist national economy is tested out in the single process of production, distribution, circulation, consumption and accumulation. The book examines statistical data on the national income of Latvia for 1960-1975 in terms of the individual stages of this process. The analysis made on the basis of the information published by the Latvian TsSU [Central Statistical Administration] does not claim to be complete, and is carried out primarily for the purpose of illustrating the theoretical provisions. The balance of social product and national income in the Union republics at present does not reflect the processes of distribution and redistribution. At this stage, the statistical information is incomplete, and in a number of instances the figures given in the book represent an assessment by the author himself on the basis of available statistical data.

Proposals on individual debatable problems, for example, on the place of science as well as the apparatus of economic management and the financial and credit system in social production and in the national economic balance, have been raised as a point of departure for further debate.

Author

CHAPTER 1: THE ESSENCE OF NET PRODUCT IN A SOCIALIST SOCIETY AND ITS PARTICULAR FEATURES IN UNION REPUBLICS

1. The Material Content and Value Form of Net Product

The basis of the well being of the people is social wealth, that is, the aggregate of goods which satisfy the diverse needs of man and all society.

For the existence of society it is essential to have the constant reproduction of the consumed elements of social wealth. But the very production process, as is known, is simultaneously a consumption process. The means of production which are productively consumed in this process are also elements of social wealth. In order that the production process be continuous, the means consumed in it should be continuously compensated for out of social product. In viewing social production as a whole, we see that the portion of aggregate product which replaces the consumed means of production in essence does not go out of the production process. For nonproduction consumption, or, as K. Marx wrote, "consumption per se," it is possible to use only the second part of social product which exceeds the replacement fund, and this comprises the net output of the production process and is added to the previously accumulated wealth.

In order to satisfy the demand for development and improvement which is naturally inherent to each person (and at the same time, to all of society), it is essential to carry out not simple but rather expanded reproduction, that is, to accumulate wealth, in adding to it more product than has been consumed in the given period. Only the portion of product which exceeds the replacement fund can be used for accumulation as well as for consumption.

Thus, the end result of social production is not the aggregate product but rather the net product, the portion of social product which remains after replacing in kind the material production factors which have been withdrawn from social wealth. Net product is the mass of useful goods created by aggregate labor which over a certain period is added to social wealth and used for nonproductive consumption or is accumulated. In other words, this is the consumption fund and the accumulation fund in their natural material form.

The replacement fund for the material production expenditures replaces not only the consumption of the previously accumulated reserve of the means of production. Social production knows a multiplicity of levels in the social division of labor, the products of which (the raw materials and semi-finished goods, fuel and energy, transportation and other production services, can over a certain period of time repeatedly enter into the material expenditures of several production elements or levels. From the standpoint of all society, the processed portion of the product is only an intermediate and not an end result of production. The portion of aggregate product which in the same year undergoes further processing or is embodied in other products (for example, a transport product) is termed intermediate product. If one subtracts from aggregate product the replacement of the production stocks existing at the beginning of the year and which were processed during the given year as well as the intermediate product, then the remaining part will be the end product.

The concept of end product is close to the concept of net product, but does not coincide with it. End product includes all the created means of labor, including accumulation and replacement of withdrawn fixed capital, while net product includes only the means which are accumulated.

The indicator of aggregate social product contains double counting of the intermediate product, the amount of which depends upon the social division of labor and the turnover rate of the means between its units, the sectors and the enterprises.

The problem of double counting, like the presence of end and net product, is caused by the varying periods of the turnover of the different parts of the product. If production is viewed over a rather short term during which intermediate turnovers are not completed between its elements, then the replacement fund covers only the expended stocks of previous periods and there is no double counting. In viewing production over a rather long time during which all the means of labor existing at the start of a specific period were consumed and actually replaced, we will establish that only net product is the end result of the production process. Precisely these were the abstract premises accepted by K. Marx in working out the schemes for the realization and reproduction of social product. Marx proceeded from the assumption that all product and its parts complete one turnover during a year, and all the elements of permanent capital, both working and fixed, are completely consumed and should be replaced.

For example, let us recall the scheme of simple reproduction:

$$4000\ c_I + 1000\ v_I + 1000\ m_I = 6000\ P_I,$$

$$2000\ c_{II} + 500\ v_{II} + 500\ m_{II} = 3000\ P_{II}.$$

Here there is no intermediate and end product, but only the replacement fund and net product. There is no double counting, as all exchange should be carried out in just 1 year.

Let us assume that with the same amount of annual product, it makes two turnovers in a year:

for the first 6 months $2000\ c_I + 500\ v_I + 500\ m_I = 3000\ P_I$,
$1000\ c_{II} + 250\ v_{II} + 250\ m_{II} = 1500\ P_{II}$;

for the second 6 months $2000\ c_I + 500\ v_I + 500\ m_I = 3000\ P_I$,
$1000\ c_{II} + 250\ v_{II} + 250\ m_{II} = 1500\ P_{II}$.

The product created in subdivision I for the first 6 months is fully consumed in the second 6 months, and has become part of the new product, hence it can be considered intermediate product.

In the given scheme no distinction is drawn between the fixed and working parts of permanent capital. In conditionally equating all permanent capital to fixed capital, in the first instance (with one turnover) we have a coincidence of end product with aggregate product (9000); in the second instance, end product would be $1500\ P_{II} + 1500\ P_{II} + 3000\ P_I = 6000$. If all the permanent capital is considered working capital, and this corresponds to the premise accepted in the scheme of the complete consumption and replacement of the permanent capital, then the end product in both the first and second instance will be equal to the net product (3000).

The net product in either variation of the scheme is the same, $3000\ P_{II}$. In distinction to the other indicators of the product, it reflects the end result of production regardless of the duration of the turnover, and regardless of the number of turnovers between the subdivisions and within them. Net product is created above the goods consumed in the production process, regardless of when these goods were created, in the past or present period.

Certain economists, for example V. Ageyev [15], instead of the term "net product" used the term "newly created product," having in mind the product created by the necessary and surplus labor, the total of necessary and surplus product. Such usage emphasizes the value form of net product in which it is measured and which can be maximized. But the designated formulation makes a confusion in the concept of newly created value which is the result of abstract labor, in reflecting the concept of a product as the result of specific labor. As is known, the value of the commodity is divided into the carried over and newly created parts, but there is no such division in the product itself. The term "newly created product," in our view, is unsuccessful, since from the viewpoint of the specific physical form of the product, all aggregate product is created "anew" in the concrete period. The dividing of value into newly created and carried over cannot be directly applied to the product.

We view net product primarily as a portion of the product in its physical form, as a certain mass of consumer values. Within net product, also in a physical form, the necessary and surplus products are formed and the amount

of them at a given moment is objectively determined by the needs and capabilities of production. Net product is the material basis for satisfying all nonproductive needs, it is a source of consumption and accumulation, and in this sense, a source of the well being of society and its on-going development.

The question arises of whether the concepts of aggregate, end and social product are to be considered as concepts common to all the methods of production whereby, as K. Marx rightly pointed out, it is impossible to explain any historically specific stage of production. The answer is both yes and no. Yes since material production is an universal condition for the existence of human society. No, for social product and its component parts with the different methods of production embody qualitatively different production relations. We are speaking not of a general concept of a product, but rather of net product as an economic category which has its place in the system of the categories of socialism.

Each method of production poses its objective goal, it formulates a basic economic law, and works out its own forms for the material expression of this goal. The aim of production in the inferior stages of the historical development of society was expressed in the natural form of the product. However, one can scarcely distinguish between aggregate and net products in a primitive society. The isolating of the different parts of the product occurred upon achieving a higher labor productivity and with the rise of private ownership. At the same time surplus product became established, becoming the aim and motivating force of production in the exploiting formations. Instead of a natural or material form, a value or monetary form gradually assumed predominant significance, and in a capitalist society this has become an universal form of wealth. Material or other goods in the designated society represented wealth not in and of itself but only to the degree that they could be sold: "The wealth of societies in which the capitalist method of production prevails operates as an enormous accumulation of goods, but the individual commodity is viewed as an elementary form of this wealth" [1, p 43].

From the viewpoint of capital, not the product itself but rather income is the result of production. In refuting G. Storch who endeavored to overcome the confusion in the concepts of value and income by proposing to view national income not as value but rather as the mass of products satisfying the demand of a nation, K. Marx wrote: "In the first place, this is a false abstraction to view a nation the method of production of which is based on value which furthermore is organized capitalistically, as an integral organism [Gesamtkörper] working only to satisfy national needs" [3, part 2, p 421].

This refutation by Marx is fully applicable to the modern views of bourgeois theory concerning national income. At present, in bourgeois science the "Smith dogma" has long been overcome; the indicator of gross product (gross national product or GNP) calculated in the statistics of capitalist countries corresponds to the concept of end product, and the net product

indicator to the concept of national income in the bourgeois interpretation of these concepts.

Net product is interpreted by bourgeois science, on the one hand, as the total of the end purchases of goods and services not related to current commercial outlays, and on the other, as the total income from various factors (usually from capital, land and labor) which is identified with the value supposedly created by these factors.

An exhaustive view of the various interpretations and indicators for the bourgeois statistics of national income has been given by the American economist P. Studenski [62, pp 245, 263, 318]. The indicators of national product are actually calculated in both the stage of distribution and use as well as in the stage of production. But P. Studenski himself considers the calculation of national income "by factorial value" or the value of the current "services" of capital and labor to be the most correct and corresponding to the "true purpose" of national income.

Thus, in bourgeois statistics the value aspect of the product is the initial and determining one, and not the net product itself. The total of the factorial incomes calculated by these statistics in actuality in no way corresponds either to the net product or the newly created value. In the first place, this total includes significant double counting of income in the sphere of services and finances. Secondly, individual elements included in the net product calculated in bourgeois statistics generally have nothing in common either with material or spiritual production, for example, the outlays on the support of the state apparatus and the army which are included in the product as services provided by the state. Some income and respectively the "services" included in the calculation are a simple fiction. For example, the hypothetical rent which is given to owners for the use of private dwellings, and the hypothetical interest given by statisticians above the actual total of bank interest as an evaluation of the product of loan capital.

However even now certain theoreticians (as G. Storch proposed in the previous century) prefer to interpret national income in the capitalist countries as the total of "utilities," that is goods and services which are the result of economic activity and serve to satisfy the needs of society. These "utilities" include also the "services" of the government, private colleges, the church and so forth, as well as the "services" of land or buildings the value of which can be measured by rent. Such an interpretation of net product is not only scientifically unsound, but also serves apologetic purposes, in justifying any activity of the capitalist state since this activity supposedly increases the total of "utilities." It turns out that the support of the state apparatus, the army and the police, like the growth of the profits of the monopolies, is a contribution to general prosperity, while the rise in taxes paid by the workers changes nothing in the prosperity of society, since the state budget also is spent on "social" needs.

The flaw in such an interpretation of net product under capitalism is that the needs of the workers are contradictory to the needs of capital; the state represents the interests of the ruling class, and primarily the interests of the monopolies. In a society divided into antagonistic classes, in actuality there are no needs of the entire society as a single whole. Any attempts to interpret net product or the national income of the capitalist countries as a contribution to satisfying the needs of society are groundless.

Net product, as an expression of the result of production, is inherent only to socialism and communism. The needs of society, as a single whole, really occur only on the basis of the direct community of all the people as an association of workers, that is, with the elimination of private ownership and the establishing of public ownership of the means of production. The basic economic law of socialism, in expressing the new essential relationship of production, consumption and the development of the individual, at the same time also determines the means for satisfying social needs, the production of net product and the form of its expression, physical and material, and into which product it goes directly from the production process and is incorporated by society. In this sense net product is a category of directly social or communist production.

In Soviet economic literature the thesis has been repeatedly proposed and established that the basic production relationship of socialism is shaped by the issue of the directly social product as a consumer value and not by the issue of value or any portion of it. A profound analysis and development of this thesis can be found in the works of A. K. Pokrytan [50, pp 64-111; 59, pp 3-27].

Directly social production and the assimilation of the product for satisfying the needs of society comprise the general essence of the communist method of production and all its phases. This essence determines the planned organization of social production, the national control of the aggregate labor force and, as the highest aim of society, the full and all-round development of man himself. The natural and material form in which the needs for specific goods are measured and satisfied corresponds to this essence. The production structure of these goods is regulated directly by society and not through value forms.

It must be recognized that the common essence of the communist method of production also characterizes its first phase, socialism, However this is far from sufficient for defining socialism and elucidating the specific economic categories of it which still to one degree or another are linked to the presence of commodity and monetary relationships. There are essential differences between socialism and communism as the inferior and superior phases of a method of production, and because of these differences the growth of one into the other is a protracted and complicated process. In addition to the common communist essence, one must also see the specific essence of socialism. It is manifested in the commodity production

which is objectively inherent to socialism, and in the existence of the value forms of economic ties along with the directly social forms. Extensive literature has been devoted to an analysis of the relationship and dialectical interaction between the two aspects of the economic relationships of socialism, that is, planning and production for the market, but the questions of the nature of commodity production and its place in the system of production relationships under socialism remain acutely disputed. Without going into the analysis of the existing concepts, it may be pointed out that a one-sided approach, either an exaggeration or, on the contrary, a negation of the fact that under socialism production remains for the market not only in terms of form but also in essence, is useless. Thus, if the problem is to provide a congruity of the material-physical and value proportions, then a one-sided approach which gives preference to one or another side from the start opens the way to voluntarism or the permitting of spontaneous control by the market.

In order to determine the relationship of the two designated aspects of a product, it is essential to elucidate the reasons for the existence of commodity-monetary relationships and the historic trend of their development.

Various opinions have been voiced on the reasons for the existence of commodity [market] production under socialiam. In our view, the explanation of commodity production by the presence of the two forms of public ownership is unsatisfactory, since the sphere of commodity relationships is significantly broader. Commodity relationships are explained, obviously, not by the presence of the two similar forms of ownership, but rather by the level of socialization which is characteristic for both forms, and which is lower in comparison with full communist socialization. It is generally recognized that under socialism the directly social nature of labor has still not been fully developed. This is apparent in the relative economic separateness of the primary units of social production, the socialist enterprises and associations. It is possible to argue against the term "separateness" which, in the opinion of certain authors, could be interpreted as the separateness of ownership. However it is not a question of absolute separateness of the producers as private owners. The socialist state enterprises are not separate owners but are elements of the common ownership of all the people. The material separateness of the enterprises to a certain degree is also characteristic for kolkhoz and cooperative ownership, although this separateness is also not absolute.

There is the opinion that the separateness of the socialist enterprises consists in the partial appropriation of the value created by them, in the portion allocated according to labor among the members of the given collective. However, this does not solve the problem. Separateness cannot be explained by the distribution of the created value or by its appropriation, since a certain separateness also exists in the very process of production, and for this reason alone the labor expenditures assume a separate social form, that is, value.

The relative economic separateness of the enterprises, in our view, is inseparably linked to the separateness of the personal appropriation of social product by the workers and to private ownership under socialism. The separateness of personal ownership is a specific trait of ownership relations under socialism the role of which has still not been fully analyzed from the scientific viewpoint, but which underlies the separateness of the enterprises, since through the enterprises individual labor is incorporated in aggregate social labor, and on behalf of society the enterprises exercise control over labor and distribution by labor. The aggregate labor of each collective is directly social, but at the same time maintains the traits of socioeconomic heterogeneity inherent to individual labor, and this requires indirect equalizing and the reduction of it to socially necessary labor in the form of value.

The contradiction between the directly social nature of production and the indirectly personal appropriation of the product is the basic contradiction of socialism. This thesis which in various formulations has been proposed and analyzed in the works of M. S. Kukushkin [35, p 200] and N. D. Kolesov [33, p 89], makes it possible to explain the contradictions in the system of interests under socialism and the contradictions of socialist commodity production. This is of essential significance also in analyzing net product.

Net product, as a category of directly social production, expresses the relations of directly social appropriation, but it can be viewed in this quality only on a scale of all society. The product of each individual element in the social division of labor naturally cannot ensure in kind either the compensation for the means of production consumed in it or the satisfying of the diverse needs of the given unit. For this reason the product is appropriated not by each enterprise, association or national economic sector, but rather is received by society and on a planned basis is channeled to other production elements. Thus, the needs of each element are satisfied from the product of the other elements of social production. This occurs (if one disregards kolkhoz-cooperative ownership) within the framework of national appropriation or appropriation by all the people. The amount of the personal appropriation of the product by each worker depends upon his individual labor contribution, and all labor is the condition for appropriation and not just the necessary labor, as well as a certain share of surplus labor which is expended within the limits of the socially normal working day. Consequently, the labor expenditures and the labor results of each worker collective also should keep within the confines of the socially necessary expenditures and results. The exchange of activities which is presupposed by the social division of labor under the specific conditions of socialism is mediated by the exchange of products as commodities. Precisely in this is the sense of the relative economic separateness of the producers, a separateness not as owners but rather as the cells of social production united by the appropriation of all the people.

To the degree that the socialist product is produced in the form of a commodity, the directly social socialist labor has a distinct dual nature and is embodied in the form of value. Hence net product as well under socialism cannct be viewed solely as a category of directly social production; it also has a value aspect.

Net product under the conditions of commodity production can be defined as the portion of product measured by the value which has been newly created in the production process. It reflects not only the relationships of a society of producers as a unified association operating to satisfy their needs, but also as relations between the individual cells of this social production the product of which embodies the value and is measured by it. While in terms of material content the concept of net product is applicable only for all social production, in the value form, it is also applicable to the product of each element (the sector, economic region, the production association and enterprise) and conditionally as well to the product of the individual enterprise subdivisions. Newly created value can be embodied in any material or physical form, and not only in the end product of society, but also as raw materials; not only in newly built projects, but also in incomplete construction, that is, in that form in which productive labor is embodied in the specific production process. The portion of the product measured by the newly created value is designated by the term "net product." But this is not the product itself but only its value equivalent.

Let us designate the value of the replacement fund, the value of necessary product and the value of surplus product by the symbols c, v and m which, considering their new content, are widely employed in the political economy of socialism.

Corresponding to the net product of society in these designations is the total product of the second subdivision P_{II} and the accumulated portion of the product of the first subdivision which in terms of amount equals the difference of $v_I + m_I - c_{II}$. Let us designate the latter by m_c. Then the net product in terms of physical content will be $Y = P_{II} + (m_c/P_I)P_I$. However, the material carrier of the value of net product is the product of each individual production element within the amount of the newly created value in it $v+m$. Expressed in relative shares of the product of each subdivision, net product equals

$$Y = \frac{v_{II}+m_{II}}{P_{II}} \cdot P_{II} + \frac{v_I+m_I}{P_I} \cdot P_I.$$

From these two equations, the equalities are derived $v_I + m_I - m_c = c_{II}$, or $v_I + m_I = c_{II} + m_c$ which are the conditions for the sale of the product for expanded reproduction. Consequently, the value form of net product presupposes a sale or the turning of the newly created value into income and the turning of income into commodities, that is, it presupposes a balancing of the material and value proportions in the national economy.

Under the conditions of socialism, with the presence of commodity-monetary relationships, net product operates in a transformed form, in the form of national income. Only value operates in the form of income, and income performs its functional purpose only in the stage of use, when value is reembodied in physical elements of net product, that is in the consumed and accumulated goods. Here the result of production operates as a result of the distribution of income and commodity circulation.

Net product under socialist conditions is measured in a monetary form not only on the level of the individual enterprise or sector, but also on a scale of the entire society, since money is a universal measure of labor and a universal equivalent of the commodities. With the level of socialization achieved in a socialist society, labor, as is known, maintains the traits of socioeconomic heterogeniety and as a quality of social labor it cannot be expressed directly in units of working time. For this reason the indicators of national income assume exceptional importance.

The term "income of a nation" first employed by the English economist William Petty (1623-1687) has been widely spread in the classic bourgeois political economy and statistics. In the "Capital" of K. Marx it is mentioned only in relation to a critique of bourgeois political economy. K. Marx spoke simply of gross income. In the works of V. I. Lenin, national income is mentioned in an analysis of the theory of Sismondi, and it is put in quotes [8, p 53]. Later V. I. Lenin used the term "national income," in analyzing the materials of bourgeois statistics. In Lenin's own text the term "people's income"* is encountered [4, p 403; 6, p 263]. In Soviet economic literature and statistics prior to 1948, the term "people's income" was used [58, p 82], and this subsequently was replaced by the term "national income." In actuality income does not have national traits or national affiliation: the contents of the term assumes belonging to a definite state and not a nation. For this reason we feel that the use of the designated term makes sense only under the conditions of nation states, while the gross income of multinational states is termed "national" purely conditionally, and particularly so in the USSR. In terms of the national Union republics of the Soviet Union, national income does not indicate any national relationships for the production and appropriation of the income. The formation of net product and its value occurs on a scale of all social reproduction, and each republic is merely an element of the USSR national economy. The term "national income" designates only the gross income of a country or republic. Considering what has been said, in our view, we must return to the Leninist terminology, as has been repeatedly proposed in modern economic literature [18, p 71; 19, p 27; 26, p 24; 35, p 78]. Below we will use the term "narodnyy dokhod."

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*[Translator's Note: To avoid the unfamiliar term "people's income" (narodnyy dokhod), the more readily accepted "national income" is employed in this translation. After this explanatory paragraph the term "national income" is used throughout, bearing in mind that the author consistently employs "narodnyy dokhod."]

In theoretical terms what is national income? Ordinarily by national income one understands the value which has been newly created during the year. Such a notion is correct but is insufficient, as it does not make it possible to fully understand the essence of national income and its role in socialist reproduction. Value, as is known, is the social labor embodied in commodities. The aim of socialist production is not the appropriation of value, but rather the ever fuller satisfaction of the needs of society and all its members, and the consumer value of goods serves this purpose.

No matter what the amount of the created value, society could not satisfy its diverse needs without producing the essential consumer values. This speaks of a qualitative discrepancy between the newly created value and the aims of socialist production.

Let us assume that the newly created value has been embodied in a certain range of consumer and production goods corresponding to the needs of society. Then the designated range of goods satisfies the given needs regardless of what its value is. For example, if an opportunity were provided to reduce the socially necessary labor expenditures per unit of product by one-half, then a socialist society could double the volume of consumption and accumulation with the former amount of value, or halve the duration of labor in production, maintaining the former level of satisfying the material needs, or within a certain proportion produce more product with a lower value, in reducing working time in so doing. The value embodied in commodities does not express the efficiency of socialist production. As a result of the growth of social labor productivity, the labor-created value does not increase, but rather the value of each unit of commodity is reduced in an inverse proportion, and this shows a quantitative discrepancy of the newly created value to the aims of socialist production.

A measuring of the result of social production by the national income indicators is based upon a calculation of them in comparable prices. And if the movement of the prices for all commodities precisely followed the changes in their value, then the national income as calculated in "value" prices would not increase as a result of the growth of labor productivity. The relative stability of prices in a socialist economy gives rise to the appearance that the newly created value grows directly proportionally to the quantity of created material goods. But the calculating of the indicators of aggregate product and national income in comparable prices is aimed at excluding the influence of price changes on these supposedly value indicators. But the indicators calculated in fixed prices at the same time lose their value content and only the ossified monetary form remains as a standard making it possible to uniformly express and total diverse products and measure the growth of their physical volume. In actuality there is neither a quantitative nor qualitative congruity between value and consumer value. The important significance of national income under socialist conditions consists not in the fact that this is an indicator of the newly created value, but rather that it reflects the net

product of society. The value or more precisely the monetary form of measuring it is the only possible form under socialism. It not only considers social labor. All the movement of labor is objectively mediated by it and it expresses the growth of the prosperity of the people and social material wealth. For this reason the national income indicators must not be set in opposition to the physical indicators, in endeavoring to express "social utility" or the satisfaction of needs in any other units.

Without considering the designated more profound essence of national income, certain authors have interpreted it only as a value category unsuitable for expressing the aim of socialism [22, p 73; 64, p 102]. The imperfection of a monetary evaluation of each individual product and the shortcomings of price formation do not exclude the fact that the income of society as a whole as well as of the enterprises and public are formed in the same prices in which the goods are valued and sold. An improvement in price formation, in ensuring a more complete and correct coordination of the labor and physical-material proportions, should ensure the even wider use of the gross income indicators. However this does not mean that with the present level of price formation these indicators are inapplicable.

Thus, determining national income by newly created value does not reflect the entire essence of this concept. The value form conceals its more profound essence which is net product. National income can be defined as the portion of aggregate value (the newly created value) by which net product is measured, or as the portion of aggregate product which is measurable by newly created value.

The duality of national income was clearly expressed in the classic definition of K. Marx: "Gross income is that portion of value and the part of gross product measured by it [Bruttoprodukts oder Rohprodukts] which remains after subtracting the portion of value or the part measured by it of all produced product which replaces the permanent capital invested for production and consumed in it" [3, part 2, p 409].

Naturally, in a capitalist society, the value aspect moves to the forefront, and net product operates as a value-derived amount which is quantitatively determinable by the newly created value. Under socialist conditions, when consumer value moves to the forefront and not the value of the commodity, national income must be determined proceeding from the value of the net product as a qualitatively determined part of aggregate product.

The indicators employed in statistics for the produced and utilized national income and the procedure for calculating them correspond to the Marxist definition. These indicators characterize the same net product as a unity of the two aspects of a commodity, and for this reason, being calculated in the same prices (actual or comparable), they theoretically should be equal. In the published statistical data, the designated indicators differ in the amount of the balance of the external economic ties and the recovery of losses in the national economy. This difference, in our view, is

theoretically not justified. National income in fact should be reduced by the amount of the losses, since from the viewpoint of the entire national economy, the product repaying the losses of social wealth can be equated to compensation for production expenditures; in fact this product does not go beyond the production sphere as its result. The total of losses consists of the losses of agricultural products in storage, the death of livestock, from halted construction, and so forth. It is small both relatively and absolutely.

The balance of foreign economic ties comprises the basic portion of the difference between produced and utilized national income. An excess of exports over imports undoubtedly represents a portion of the net product of a nation not only in terms of value but also in physical and material forms. In its economic essence, this is equivalent to accumulation (the difference of the granted foreign credits and the received repayment of Soviet credits) or consumption overseas (for example, deliveries as gratis aid to other nations). However, if the consumption of foreign tourists, state institutions or private firms in our country exceeds Soviet consumption abroad, then in this portion the consumption fund of the Soviet union can be somewhat overstated and the accumulation fund understated. In such an instance the incomplete amount of the real accumulation abroad is reflected in the balance of foreign economic ties. The corresponding portion of net product must be equated to exports, and not considered as consumed inside the country.

The produced national income of the USSR exceeded the income utilized in the national economy by 3.0 billion rubles in 1965, by 4.4 billion in 1970, and 0.4 billion in 1975 (Table 1).

Table 1

Growth of Produced and Utilized National Income of the USSR, billion rubles

Год 1	2 Произведенный народный доход					3 Использованный народный доход			
	4 в ценах соответствующих лет	5 в ценах 1955 г.	6 рост в процентах к			4 в ценах соответствующих лет	7 рост (в сопоставимых ценах) в процентах к		
			1960	1965	1970		1960	1965	1970
1960	145,0	141,2	100			142,8	100		
1965	193,5	193,5	137	100		190,5	132	100	
1970	289,9	280,6	199	145	100	285,5	186	141	100
1975	362,8	369,6	262	191	132	362,4	239	182	128

Sources: [44, p 533, 535; 45, pp 49, 51, 565, 566].

Key: 1--Year; 2--Produced national income; 3--Used national income; 4--In prices of corresponding years; 5--In 1965 prices; 6--Growth in percent over; 7--Growth (in comparable prices) in percent of.

The correcting of the indicators for produced national income by the amount of losses in production and the including of the foreign investment balance in the utilizable national income would equalize these indicators. After the correcting they would express the net product of the nation in actual prices.

One must note the discrepancy between the produced and utilized national income in comparable prices. The dynamics of these indicators have differed by 4-5 percent over each five-year plan. The growth rate of produced national income over the last 10 years has exceeded the growth rate of utilized national income by 9 percent, and over 15 years by 23 percent. Here the proportional amount of the balance of foreign economic ties has become insignificant, and cannot have a substantial impact on the national income indicators. The discrepancy in the dynamics of these indicators requires special explanation.

As is seen from Table 1, since 1965, produced national income in actual prices has increased by almost the same amount as in comparable prices. At the same time, utilized income in actual prices rose by 171.9 billion rubles, while in 1965 prices, its increase would have been figured at 156.2 billion rubles. The difference of 15.7 billion rubles is 9 percent of the actual increase. There was a rise of 4.5 percent in the average prices of the entire aggregate of goods comprising net product. The fact that the change in prices was not reflected in a corresponding increase in the produced national income is ordinatily explained by the difference in the structure of one or the other indicator [45, p 779; 49, p 86].

As is known, over the designated period wholesale prices were increased for many means for production, as well as the state purchasing prices for agricultural product. With a fixed share of accumulation, this should have had a uniform influence on the indicators of produced and utilized national income. The change in the share of accumulation was not so significant that its evaluation could have substantially altered the amount of national income as a whole. Thus, during 1972 consumer goods (the product of the second subdivision) were 83.5 percent of the utilized national income, and means of production were 16.5 percent. The share of the latter, in comparison with 1966, declined by 1.1 percent. In terms of the consumption fund, the price change could have significantly influenced the evaluation of the agricultural product which was consumed in kind. But the basic portion of the individual consumption fund was made up of goods acquired in state and cooperative trade. The overall state retail price index from 1965 through 1975 did not change.

The growth of retail commodity turnover in comparable prices also reflects the growth of the physical volume of consumption and the change in its structure. The appearance of new commodities, like the replacing of old goods with more modern and expensive ones, is not reflected in the retail price indexes. Here the consumption fund in monetary terms grows more rapidly than the physical volume. A change in assortment should also raise the evaluation of the produced national income, and for this reason

it does not explain the designated discrepancy in the indicators. The reasons for this discrepancy lie in the very concept of national income and in the opposition of its material and value aspects. The procedure for calculating produced national income in comparable prices should be constructed considering this.

The indicator of produced national income, in contrast to utilized income, characterizes not the material content of net product in the given price scale, but rather its value equivalent, that is, the total of the net product of the sectors. The produced national income in comparable prices is calculated as the difference between the gross product of the major sectors and the material expenditures on production which are evaluated in the same prices. But this evaluation, particularly as concerns material expenditures, is not related to the evaluation of net product, and can distort an objective equivalence of national income to net product.

In industry gross product at each enterprise is accounted for both in current and in comparable prices. In agriculture, gross product is judged on the basis of the balances for the individual product types. In the remaining sector the estimate of product in comparable prices is conditional. Even less accurate is the revaluation of material expenditures, since, in the first place, there is no direct accounting for current expenditures in terms of the types of raw products and materials, and, secondly, material expenditures include fixed capital amortization and this depends both upon its evaluation and upon the amortization rate. The fixed capital received in the period between the revaluation of the fixed capital is accounted for at its initial value, so that over time the expenditures on amortization become, strictly speaking, incomparable. In addition, in the aggregate calculations the material expenditures would include the unamortized portion of the value of liquidated fixed capital.

Due to the impossibility of direct calculation, material expenditures are recalculated in comparable prices by dividing by the indexes calculated on a centralized basis at the USSR TsSU for the production sectors on the basis of price indexes for individual materials. Clearly this recalculation cannot provide complete comparability of the national income indicators.

In the national income calculations there are also other conditional factors, for example, in the delimitation of freight and passenger transport, in the dividing of communications into those serving production and those serving the public, as well as in determining material expenditures as part of the comprehensive expenditure items, and so forth. The listed conditional factors can lead to an overstated evaluation of national income in the production stage. For adjusting the calculations carried out for the production stage, it would be possible to calculate national income in the stages of distribution and use [26, p 65; 57, p 11; 70, p 48].

As B. P. Plyshevskiy [49, p 88], for matching the dynamic series for produced and utilized national income, it would be essential to calculate

growth indexes for consumption and accumulation according to the structure of the base period, and make the corresponding correction in the amount of used national income.

In having sufficient statistical information, of course it would be possible to isolate the growth of the production volume in a pure form, in calculating indexes for the permanent composition, as this would exclude the influence of structural changes. However such an exclusion would scarcely be justified, since the growth of the actual product volume is intertwined with its qualitative changes. The proportions of social product become particularly dynamic under the conditions of the scientific and technical revolution. The changes in net product caused by structural shifts become a very important characteristic of economic development. They cannot simply be disregarded as factors which distort the growth of the physical volume of net product. There is no justification for considering the indexes for the growth of utilized national income in comparable prices as understated, if they reflect a real change in the volume and structure of personal and social consumption and the accumulation of social wealth.

The above-given proposal of B. P. Plyshevskiy is related to the fact that he considers produced national income as an indicator of net product. But if as net product one uses not the produced but precisely the utilized national income, then the proposed correction is inapplicable. In our view, it must be made into the amount of produced national income, in order to reflect in it the real growth of the physical volume of net product in the structure of the report period. This is essential to coordinate the indicators of produced national income with the real income of the population and real accumulation in the unified and balanced system of indicators.

The theoretical elucidation of the essence of net product and its dual expression in the physical-material and monetary forms is the basis for analyzing the regional aspect of reproduction and a correct understanding of the national income in the Union socialist republics.

2. Particular Features of the Net Product of a Union Republic

The essence of net product, as the aggregate of consumed and accumulated material goods created in the production process, is fully manifested only in the system of social reproduction taken as a whole, on a nationwide scale. The link between production and consumption is mediated by exchange (under socialist conditions, by the sale of the products). In viewing the system of social reproduction as a whole, we propose that all aspects of exchange are carried out within the system itself, so that the quantitative conformity of net product in physical and value terms cannot be disrupted. It is assumed that foreign exchange (foreign trade) is equivalent, since the operations related to the importing and exporting of goods partially overlap, and only the net export of goods operates as the net product of the nation.

In examining the individual parts of the system, that is, the economic regions of the nation of the Union republics interrelated by the territorial division of labor, but united by the common social appropriation of the product and functioning for the achieving of the common goals of the system, the prerequisites of self-contained internal exchange fall away. The link between production, on the one hand, and accumulation and consumption, on the other, is also carried out through the medium of exchange. But this exchange is to a greater or lesser degree external in relation to the given subsystem. At the same time, the territorial unit exists as an economic region precisely because the relationships between production, consumption and accumulation are carried out by the medium of domestic exchange within the given territory. The ratio of internal and external exchange depends upon the relative size of the region and the territorial division of labor, and the latter, in turn, depends upon the availability of natural resources and the level of special production. But internal exchange should remain predominant in the economic turnover of the region. To the degree to which the economic ties are self-contained within the region, the net product of a region maintains its sense as the end result of production, upon which depend the satisfying of its social needs and the growth of social wealth.

The relationship between production and consumption within a region is expressed in the existence of particular territorial (regional) economic interests. National interests under socialist conditions, with the elimination of the inequality of nations, lose their economic content, since the economic interests of the socialist nations of the USSR merge with the interests of all the people. The existence of distinct national interests is related solely to the survival of national particular features in the development of culture and the other spheres of the superstructure. For realizing these national interests, of essential significance is the realization of territorial interests which at the same time act as national ones.

The full accounting and reconciling of territorial, national and the common interests of all the people are ensured by the state system of the Soviet Union, where each national Union as well as autonomous republic has a relatively independent economy which to a significant degree is managed by the republic economic bodies, and are relatively independent elements in the system of planning, commodity circulation and finances. The relative independence of social production in the Union republics is also manifested in the fact that the net product and newly created value assume the form of national income.

Prior to 1957, in the USSR the national income of the Union republics was not calculated. In keeping with the strengthening of the economy, the development of commodity circulation, and the growth of the prosperity of the people, the role of the republic bodies grew in the management of the national economy and in ensuring the territorial proportions. In 1958, after the reorganization of the management of industry and construction along territorial lines, the need to measure the results of production

and to balance the development of the republic economies grew stronger, and at the same time the informational support was improved. Since 1958, all the Union republics have calculated aggregate social product and national income, and since 1960, data have also been calculated on the use of national income for consumption and accumulation. Since the calculations of the republic statistical bodies are carried out according to a standard procedure and at the USSR TsSU are corrected and supplemented by individual elements of product and income calculated on a centralized level, the total of the national income of all the republics corresponds to the national income of the country as a whole.

The procedure for calculating the national income of the Union republics has been widely examined in the literature [17, 20, 37, 39, 51, 53, 57, 70]. It is calculated both in the actual prices of each year as well as in comparable prices, as the total net product of the national economic sectors. The net product of the sectors does not show the product volume as such; this is calculated in comparable prices only for measuring the growth dynamics with a comparable evaluation of material expenditures of the given sector. The growth of the actual product volume is measured by the indicator of the gross product of the sector and not by net product.

The national income of Latvia and its sectorial structure are shown in Table 2.

Table 2

Gross and Net Product of the Sectors of the Latvian Economy, million rubles[1]
(in prices of corresponding years)

Sectors	1965			1975			Net product of 1975 in % of 1965 in comparable prices
	a	b	c	a	b	c	
Industry	3,900	1,498	58.1	7,458	2,593	54.6	230
Construction	400	169	5.4	891	429	9.0	214
Agriculture	1,100	642	22.5	1,766	813	17.1	71
Transportation and communications	200	104	3.9	436 744	260	5.5	248
Trade and etc.	300	280	10.1		657	13.8	207
Total	5,900	2,693	100	11,295	4,752	100	192

[1]Sources: [36, pp 44-45; 69, pp 36-37].

Key: a--Gross product; b--Net product; c--Proportional amount of sector in economy, %.

The sectorial structure of the production of net product in Latvia differs somewhat from its structure for the nation as a whole: the proportional amount of industry is 1.9 percent higher, while the proportional amount of construction, transportation and communications is 3.2 percent lower. The share of agriculture has gradually been declining and is approaching the USSR average [45, p 564].

In comparing the growth of net product in comparable prices and in the prices of corresponding years, we will see that in all the sectors, with the exception of industry, the growth in actual prices was higher. In industry, net product in comparable prices increased significantly more rapidly. In the given instance this is explained not by the decline in the wholesale prices of the industry, but rather by the amount of the turnover tax which is included in the net product of industry. This amount differs significantly in the actual and comparable prices, and is due both to the revision of the turnover tax rates as well as to the payments from the state budget which compensate for the difference between the purchasing and calculated prices for agricultural raw materials. Payments from the state budget to adjust the difference in prices in calculating the income of the republic are excluded from the total of the turnover tax. Over the designated period these payments grew significantly, and correspondingoy the share of the turnover tax in the income of Latvia declined relatively.

The net product of republic agriculture in comparable prices declined by 29 percent, while in actual prices it rose by 27 percent. This gap also must not be explained solely by prices. Gross agricultural product in actual prices increased by 61 percent, and in comparable prices by 16 percent, and the product of the nationalized sector in terms of the physical volume rose by 35 percent, while the product of the private farms declined [43, p 171]. Obviously, this shift in the production structure also caused a general decline in net product due to the particular features of evaluating the product of the private farms.

The indicators for the income of the Union republics are widely used in economic calculations for analyzing the structure and the dynamics of the growth of material production, for establishing the plans for the development of production and the prosperity of the people, and for assessing production efficiency. For comparing the economic development of the Union republics, the indicators of per capita income and income per average annual employee (including workers, white collar personnel and kolkhoz members) can be employed. The national or republic income per employee in material production is an indicator for the productivity of social labor. This is one of the basic indicators of production efficiency. It reflects both the savings of live and embodied labor as well as the changes in the production structure related to this economy.

Let us examine these indicators for the Baltic republics in comparison with the average Union level (Table 3).

Table 3

Indicators for the Growth of Income in the Baltic Republics[1]

Indexes	Republic	unit	1 Абсолютная величина в ценах соответствующих лет			2 Темп роста, в % к 1960 г.		3 Отклонение от среднего темпа роста, в % к 1960 г.		4 Темп роста, в % к 1970 г.
			1960	1970	1975	1970	1975	1970 г.	1975 г.	
5) Народный доход	8 Латвийская ССР	mln. rub.	1995	3738	4752	204	271	+6	+9	133
	9 Эстонская ССР	"	985	2165	2645	206	269	+6	+7	131
	10 Литовская ССР	"	1796	4205	5535	238	314	+39	+52	132
	11 СССР в целом	bln. rub.	145,0	289,9	362,8	199	262			132
6) Народный доход на душу населения	Латвийская ССР 8	rub.	937	1574	1910	183	232	+9	+15	127
	Эстонская ССР 9	"	810	1587	1846	182	228	+8	+11	125
	Литовская ССР 10	"	646	1336	1676	210	263	+36	+46	125
	СССР в целом 11	"	676	1194	1426	174	217			125
7) Народный доход на одного среднегодового работника[2]	Латвийская ССР 8	"	2090	3110	3710	191	242	+9	+17	127
	Эстонская ССР 9	"	1770	3170	3670	185	233	+3	+8	126
	Литовская ССР 10	"	1680	2850	3470	209	260	+27	+35	124
	СССР в целом 11	"	1720	2700	3080	182	225			123

[1]Sources: [36, pp 45, 49, 191, 193, 203; 42, pp 56, 69; 43, pp 50, 53, 348; 45, pp 10, 49-54, 563; 46, pp 124, 223, 239-240; 68, pp 144, 200, 219, 223].

[2]The absolute amount of the indicator is calculated for all the employees, including the nonproductive sphere; the growth rate is calculated per employee of material prcduction (the growth rate of social labor productivity).

Key: 1--Absolute amount in prices of corresponding years; 2--Growth rate in percent of 1960; 3--Deviation from average growth rate in percent of 1960; 4--Growth rate in percent of 1970; 5--National or republic income; 6--Per capita national or republic income; 7--National or republic income per average annual worker; 8--Latvia; 9--Estonia; 10--Lithuania; 11--USSR as a whole.

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The per capita production of national income in Latvia exceeds the average Union level by 32-34 percent, and in Estonia by 29-33 percent. In Lithuania the starting level was below the average, but due to the more rapid growth rate Soviet Lithuania by 1962 had exceeded the average Union indicator, and in 1975, per capita income was 18 percent higher than the Union average.

The exceeding of the average Union level by the Baltic republics to a significant degree can be explained by demographic factors such as the age structure of the population, the higher proportional amount of the urban population and the high degree of labor resource utilization. But the republic income calculated per employee in material production also exceeds the average Union level, that is, in the Baltic the productivity of social labor and labor intensity are higher.

The production level of net product per employee in monetary terms (in rubles) differs in the various sectors primarily because product prices deviate from product value. Since the economy of the Union republics has a differing sectorial structure, it would be methodologically incorrect to directly compare the absolute levels of the social labor productivity among the republics. Table 3 gives the indicator of produced national income per employee, including the workers and white collar personnel in the nonproductive sphere, but not counting the family members of the workers engaged solely on the private farm. Consequently, this indicator only partially reflects labor productivity. But it does characterize the economic development level from another aspect, from the viewpoint of the resources utilized for wages, social consumption and accumulation calculated per employee.

The high level of national income which depends upon labor productivity, in turn, contributes to its further growth, in ensuring a rise in the capital-to-labor ratio and in creating conditions for the corresponding development of the labor force. The new system of planning and economic incentive under the conditions of the economic reform carried out since 1965 has undoubtedly contributed to the intensive growth of production. The growth of social labor productivity in 1961-1970 in Latvia and Estonia outstripped the average growth rate by 9 percent and 3 percent, and in Lithuania by 27 percent. During the Ninth Five-Year Plan, the growth of social labor productivity in the Baltic republics was also several percent higher than the average. In Latvia and Estonia, 87 percent of the increase of national income was achieved due to this factor, and 80 percent of the increase in Lithuania. In the other republics, the share of the increase due to involving additional labor resources in material production was somewhat higher. For this reason the growth indicators for the national income of the Baltic republics was on the general Union level.

A process of equalizing is also observed among the Baltic republics. The difference in the per capita national income levels between Latvia and Lithuania has declined both relatively (from 31 percent in 1960 to 12 percent in 1975), as well as absolutely (from 291 to 234 rubles), and between Latvia and Estonia, from 127 rubles to 64 rubles (to 3 percent).

At the same time, in terms of the other republics, with the overall trend for the equalizing of the economic development levels, the gap can decline relatively but in absolute terms it can rise. This is brought about by many factors which require a specific analysis and planned action. As long as such a gap exists, it necessitates a partial redistribution of the income of the Union republics for general national interests. Redistribution in a monetary form objectively conforms to the movement of the material form of the product, that is, to the ratio of the imports and exports of the goods. This is the basic feature of the link between production and use of net product in the Union republics.

Each republic delivers a portion of the product to other republics and simultaneously receives deliveries from them. For example, in 1972, Latvia imported 42 percent of the industrial product consumed in it, and, in turn, 43 percent of the product produced in the republic was sent outside it. For metals the imports covered 91 percent of the republic's demand (64 percent of the product was exported); for light industry products imports were 36 percent and exports 44 percent. Some 12 percent of the consumed agricultural product was imported from the other republics and 4 percent of the republic product was exported [42, p 66].

Since the Union republics are economically not separate, the commodity exchange as a whole should not be equivalent because the total of the product sold outside the republic can be greater or lesser than the purchases in the other republics. The difference which comprises the net export or import of commodities is not returned to the republic in the form of a monetary equivalent, and also does not comprise the accumulation of the given republic (as occurs with the foreign trade balance between states), but can be used in other republics. Thus, the net product of the Union republics does not coincide with the consumption and accumulation funds in the republic either in terms of the physical and material form or quantitatively in monetary terms. Depending upon the nature of interrepublic exchange, the physical elements of net product can be exchanged for elements of the replacement fund. And conversely the exportable raw products, subjects of labor and energy which in essence are an intermediate product can be exchanged for goods consumed as net product. For this reason in the republic economy, the ratio of the two subdivisions or the ratio of the "A" and "B" groups of industry, as well as their growth rates are extremely different and differ substantially from the ratios and rates existing for the nation as a whole. For example, in 1975, the "B" group was 26.0 percent of the industrial product of the USSR, but in Latvia it was 43.8 percent [43, p 86; 45, p 192]. These ratios depend totally upon the social division of labor among the republics, and they cannot be judged solely from the viewpoint of reproduction in the individual republics.

Not only the internal products of a republic are used for the consumption and accumulation in the economy of the Union republics. Quantitatively (in monetary terms) the consumption fund and the accumulation fund are less than the net product of the republic, if the exports of goods exceed imports, or is more if the imports exceed exports.

Production specialization has led to a rise in labor productivity and has increased the net product of the nation, and simultaneously the net product of each republic.

From the viewpoint of the exchange of labor, the exporting of goods can be divided into three parts:

a) The portion which compensates for the elements of the replacement fund imported into the republic, freeing the republic from the labor expenditures which without corresponding specialization would be less productive and due to the absence of natural resources in the republic would be impossible;

b) The portion which compensates for the elements of the consumed or accumulated product to be imported into the republic, and also designates the exchange of certain labor for other which under the conditions of the republic would be less productive. The labor which could be needed for the creation of additional means of labor can be replaced by the labor for creating exportable means of life, or vice versa;

c) The portion of exports which exceeds the volume of imports into the republic does not have a definite equivalent in the form of the goods which can be consumed or accumulated in the republic, but rather directly expresses the contribution of the republic to the net product of the USSR. Newly created value also makes the corresponding movement. The equilibrium of utilizable net product and the total income is maintained by the planned redistribution of income which is carried out through the state budget and the financial system of the sectors and the enterprises. The positive balance of redistribution in some republics shows a corresponding negative one in others. On a nationwide scale, this redistribution does not alter the amount of net product.

The necessity of redistribution is related, in the first place, to the uneven territorial placement over the republics of such general expenditures of the nation as expenditures on defense and on science. But quantitatively the designated factor is not a determining one. All nonproductive expenditures of such a nature are covered from the consumption fund of the Union republics at the site of expenditure, and the net receipts from the common Union resources can be considered in the accumulation fund, including the accumulation of state reserves.

The second cause of redistribution (which explains its more significant part) is the objectively uneven location of accumulation over the territory of the country, and this is related to the necessity of concentrating significant investments in the extracting industry, to the improvement of the location of the productive forces, and to the uneven availability of labor resources.

Thirdly, the movement of income between the republics is determined not only by the necessity of the redistribution of value for forming the resources of centralized capital investments or centrally financed consumption, but by the very formation of value and by the particular features of its realization in the form of money income. With the existing price system, national income differs from the value created in the republic, since the wholesale and procurement prices serve not only for measuring value, but also carry out its distribution functions. This applies particularly to the evaluation and realization of the value of agricultural product. A significant portion of the actual value of agricultural raw materials is realized in the form of the turnover tax in the prices of light and food industry products. Depending upon the existing structure of the republic economy, the evaluation of net product and income in the individual republics can be understated, while overstated in others. In particular, in Latvia the proportional amount of the light and food industry is relatively higher, while a portion of the agricultural raw materials and natural fiber for the textile industry is imported from other republics. The turnover tax which is accounted for as produced in the republic averages 14-16 percent of the national income of Latvia, and this exceeds its proportional amount for the nation. For this reason, the Union budget receives more from the turnover tax realized in the republic than in the other republics. This portion of the direct redistribution of national income should be compensated for by an indirect redistribution of value carried out by prices.

Thus, the net product of a republic can be greater or lesser than the total accumulation and consumption by the amount of the balance of commodity imports and exports, and correspondingly the produced national income is greater or less than the national income utilized in the republic economy. The designated difference also includes the losses, but the latter comprise an insignificant amount [24, appendix No 5]. As in terms of the national income of the country, we consider it more correct to exclude the losses in calculating national income [of a republic]. Below we will consider the produced national income minus losses to be the net product of a republic.

Let us examine the movement of the net product of Latvia in 1965-1975 (Table 4).

The consumption fund and the accumulation fund in the Union republics are accounted for in the same grouping as for the USSR as a whole.

The consumption fund includes: 1) the personal consumption of material goods by the population; 2) the material expenditures of the enterprises and institutions serving the population; 3) the material expenditures of scientific and management institutions.

The first two parts of the fund can be termed the consumption fund of the population. They directly characterize the level of material consumption which is the most important element in the standard of living of the people.

Table 4

Ratio of Net Product, Consumption Fund and Accumulation Fund of Latvian National Income[1] (million rubles, in prices of corresponding years)

Year	1 Чистый продукт	2 Сальдо перераспределения	3 Использованный народный доход	4 В том числе: 6 фонд потребления	4 В том числе: 7 фонд накопления	5 В % к чистому продукту: 2 сальдо перераспределения	5 В % к чистому продукту: 6 фонд потребления	5 В % к чистому продукту: 7 фонд накопления
1965	2675	−293	2382	1828	554	11,0	68,3	20,7
1966	2794	−259	2535	1986	549	9,3	71,1	19,6
1967	3062	−172	2890	2173	717	5,6	71,0	23,4
1968	3215	−126	3089	2384	705	3,9	74,2	21,9
1969	3413	−141	3272	2539	733	4,1	74,4	21,5
1970	3719	−64	3655	2762	893	1,7	74,3	24,0
average for 1966—1970	3240	−152	3088	2369	719	4,7	73,1	22,2
1971	3939	−149	3790	2913	877	3,8	73,9	22,3
1972	4107	−237	3870	3041	829	5,8	74,0	20,2
1973	4240	−65	4175	3166	1009	1,5	74,7	23,8
1974	4537	−252	4285	3305	980	5,6	72,8	21,6
1975	4722	−258	4464	3507	957	5,5	74,2	20,3
average for 1971—1975	4309	−192	4117	3187	930	4,5	73,9	21,6

[1]Sources: [36, p 48; 41, p 52; 43, p 42].

Key: 1--Net product; 2--Balance of redistribution; 3--Utilized national income; 4--Including; 5--In percent of net product; 6--Consumption fund; 7--Accumulation fund.

Personal consumption comprises 89-90 percent of the consumption fund of the national income in a republic. Some 78-81 percent of this fund is made up by the consumption of goods acquired from the monetary income of the population (including the payment for electric power, gas, water and the purchasing of handicrafts). The consumption in kind of products produced on private farms as well as received in payment for labor from the kolkhozes and sovkhozes, and wild forest products (mushrooms, berries and so forth) has continuously declined: in 1965, it was 10 percent of the consumption fund, in 1970 it was 8 percent, and in 1975, 5 percent. Finally, personal consumption includes the wear and tear on the housing, the share of which is also declining and is less than 3 percent of the consumption fund [43, p 349].

The material expenditures in the public service sphere comprise approximately 8-9 percent of the consumption fund of national income, while the material expenditures of the state and scientific sphere are about 2 percent. A predominant share of these expenditures is covered from the state budget of a republic. But the material expenditures of the service sphere also include the consumption of material goods as part of the services paid for by the public. This includes amortization on nonproductive fixed capital (with the exception of amortization of housing accounted for in private consumption).

In statistics the accumulation fund is divided in two ways: in the first place, in terms of the physical embodiment and the nature of the turnover of the accumulated goods into accumulation of fixed capital and material working assets and reserves; secondly, the accumulation of fixed capital is divided in terms of the functional form into the accumulation of productive and nonproductive fixed capital.

In terms of the role in expanded reproduction, the second classification is indisputably more important. However, it is not made in terms of the accumulation of current inventories. Here instead are reflected both the production and commodity inventories, the state reserves and other expenditures which are accounted for centrally. In order to judge the actual increase in the physical factors of production, in the composition of the accumulation of working assets and reserves it is essential to isolate the production inventories and commodity stocks in the cash and disposable stocks. Such a calculation has been made, for example, by A. I. Notkin [48, p 10]. Out of the total increase in material working assets and inventories in the USSR for 1970 totaling 32.6 billion rubles, in his calculation production accumulation included just 9.4 billion rubles. Thus, with an overall accumulation rate of 29.4 percent, the production accumulation rate figured by him is 20.5 percent.

In Latvia, the increase in productive fixed capital in 1966-1970 as an annual average was 239 million rubles, or 7.4 percent of the net product; the accumulation of material working assets, reserves and other expenditures was 372 million rubles, or 11.5 percent; the increase in nonproductive fixed capital was 3.3 percent. According to the method of A. I. Notkin, production accumulation in the republic, without considering the increase in commodity inventories in trade and the state reserves, has been valued by us at 440 million rubles, or 13.6 percent of the net product. The remaining accumulation must be put in the nonproductive sphere; its proportional amount in net product was 8.6 percent. In 1971-1975, production accumulation as an annual average was, respectively, 553 million rubles, or 12.8 percent, and nonproductive was 377 million rubles, or 8.8 percent of the net product.[1]

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[1]Calculated from the data of Table 4 and the sources: [41, p 443; 43, pp 42, 477].

For the individual years, the ratio of the increase in fixed capital and material working assets was uneven. This is explained, in the first place, by the fluctuations in the stocks of agricultural products related to the varying yields, and secondly, to the fluctuations in the increase in incomplete construction and the completion of new major projects.

The accumulation fund in an Union republic cannot be viewed in isolation from the redistribution of resources among the republics. The redistribution balance in Latvia averages 4.6 percent of the net product, but it varies significantly over the years. As is seen from Table 4, these fluctuations are inversely dependent upon the share of accumulation. If in an individual year the share of accumulation rises, then the share of the transfer of income to the general Union resources declines, and vice versa. Here the share of the consumption fund since 1968 has been relatively stable and is 73-74 percent.

The transition to the calculating of production and the use of national income in terms of the Union republics is seen as a major step ahead in developing the statistics of a national economic balance. At the same time, in the statistics of national income of the republics, there still is a series of unsolved problems and shortcomings. First of all, these statistics are not sufficiently effective. It takes almost a year to receive national income indicators which have been coordinated and approved by the USSR TsSU, and this is too long a period for these data to be used for current planning and national economic management. By accelerating data processing, the designated period of course could be somewhat shortened. However, for a substantial rise in the effectiveness of statistics, it would be necessary to calculate the aggregate indicators directly on the basis of current reporting information, including during the year and quarterly. Such preliminary calculations could be made from data on the specific forms of income, that is, for the stage of national income distribution.

Secondly, as in the USSR as a whole, in calculating national income extensive use is made of coefficients for distributing the comprehensive expenditure items and other evaluation standards which are centrally set by one-shot surveys or by experts. These coefficients make the results of the individual calculations more or less conditional and divorced from the actual process of the formation of net product and its value.

In calculating the net product of industry using coefficients, material expenditures are judged as part of the other monetary expenditures, expenditures outside production, as well as part of all the production outlays of rayon-level industry, the ministry of trade, the consumer cooperatives, kolkhozes and interkolkhoz associations. All these elements comprise about 10 percent of the industrial net product.

For construction, on the basis of centrally announced coefficients, a significant portion of the expenditures of the state and cooperative construction organizations and all the net product of individual construction are

distributed. For agriculture, indirect evaluations are applied in distributing the comprehensive expenditure items and in calculating the net product of the various state farms (with the exception of the sovkhozes). As for the private farms, here no accurate accounting of expenditures is made at all. An evaluation of their net product is carried out on the basis of budget statistics data and this cannot be considered sufficiently representative for this purpose. As a total, about 60 percent of the agricultural net product is judged indirectly.

It is even more difficult to judge the net product of transportation and communications. As is known, in Soviet statistics the production of transportation and communications services is divided into two parts. The sphere of material production includes only freight transport and the communications serving production, while passenger transport and the communications serving the public are considered as nonproductive activity.

The carrying out of the designated services from the viewpoint of technology is undoubtedly a material process. In the aspect of the social organization of labor, each sector of transportation and communications comprises a single whole. The serving of production and individual clients, as a rule, is carried out by the same enterprises, using the same means of production, and to a significant degree, also the live labor of the same employees so that separate accounting of either product or either expenditures is virtually impossible. In the statistics of certain socialist countries (the GDR, Hungary and Poland), for this reason all transportation and communications are considered in the production sphere. The practical advisability of such an approach is determined by the organic unity of the designated sectors and by the needs of the unified system of national economic accounting and planning.

The excluding of passenger transportation and communications from the sphere of material production also raises theoretical questions. On this issue many prominent Soviet economists [31, 65] have come out against the "restrictive" interpretation of the production sphere and production labor.

The services of transportation and communications are material not only in terms of the method of their production, but also in terms of the nature of consumption. They satisfy material needs, they characterize the material prosperity of the people, and for this reason they should be accounted for as part of the aggregate and net products and the real income of the population. In our view, the notion of the production sphere in the future must be revised, and passenger transportation and communications must be included in this, as well as the other services of a material nature. However in our work, in using the statistical data, we will adhere to the interpretation accepted in statistics for the production sphere. Since in the given instance it is a question of evaluating the amount of net product, it must be considered that an artificial separating of these sectors will lead to significant conditionality both in the evaluation of gross product, as well as in the distribution of expenditures for the designated two parts.

In addition, for railroad transport, both gross and net product of the Baltic Administration of the Ministry of Railroads is divided between the republics which are served by the administration proportionately to the length of the tracks. This can scarcely correspond to the actual product of the railroad workers or to the actual formation of income. This also applies to air transport, the product of which generally cannot be calculated in the republics but is centrally judged and distributed between the republics by the USSR TsSU.

Thus, virtually the entire total of the net product in transportation (with the exception of maritime and pipeline transport which are fully considered as freight transport) and communications is obtained as a result of hypothetical evaluations.

In the calculating of the net product of trade, material and technical supply and procurement, about 20 percent of the net product is indirectly judged, and in the other sectors of material production, it is approximately one-half.

Ultimately, according to our estimate, at least 40 percent of the national income in a republic is calculated not directly from the report data of the production units, but rather indirectly, by using calculation coefficients and standards. This inevitably gives rise to a discrepancy between the evaluation of produced and utilized net product. In order to eliminate as fully as possible the errors in the assessments and bring the national income indicators closer to net product, the calculations of produced national income should be linked with the primary distribution of income in the republic, and the calculations of utilized national income should be related to the actually existing end income. The balance of the redistribution of income between the republics would be formed from the movement of the specific income, and should correspond to the movement of net product in kind, for this is the element in the movement of net product which ensures the unity of its two aspects. At the same time this element has been the least worked out theoretically, it is poorly shown in the statistics, and insufficiently considered in planning social reproduction in a republic.

The national economic balance should ensure the coordinating of net product and national income in all the stages of its movement. For the USSR as a whole, the balance encompasses the production, distribution and utilization of national income. The stage of distribution and redistribution is not shown in the balance of social product and national income in an Union republic. At first glance, a linking of produced and utilized national income is also achieved in the republics. But this balancing to a significant degree is of a formal nature as the redistribution balance is determined mechanically as the difference of the two sides of the balance. This means that along with the actual redistribution of income, it also contains all the errors and statistical discrepancies in the calculations of either side of the balance. This can be seen also from the practices of correcting the preliminary calculations of the balance at the USSR TsSU.

As a rule, an adjustment of any one side of the balance does not have a corresponding change in the other side, but only the redistribution balance is changed. Only the elaboration of the stage of the distribution and redistribution of national income would make it possible to reciprocally correct all sides of the balance, and show the relationships with the general Union resources not in a balanced form but rather in a full form.

A further step along the path to improving the balance statistics of the Union republics would be the elaboration of a national income balance using the complete system employed for the USSR as a whole and including a balance for the distribution and redistribution of national income. For improving national economic planning, respectively there must be the elaboration of an aggregate financial plan not only for the nation but also in the Union republics. The necessity of solving these problems was pointed out in a number of papers and recommendations at the all-Union conference on the problems of the financial balance and the national income balance held in 1974 in Moscow [40, part 2, p 125]. The setting up of a unified and integrated system of national economic balances for the USSR and the Union republics within the automated planning calculation system could comprise subsequently the basis for a statewide automated management system.

CHAPTER 2: THE BALANCING OF THE MATERIAL CONTENT AND VALUE FORM OF NET PRODUCT IN NATIONAL ECONOMIC ACCOUNTING

National economic development under the conditions of rapid scientific and technical progress is characterized by great dynamicness. As a result of carrying out the program to raise the standard of living of the people and strengthen economic incentives, the dynamicness of the monetary income of the population has also increased. This has also determined the necessity of balance development of production, consumption and accumulation of net product in terms of the material content and in the value forms of income, however this objectively complicates the ensuring of such balancing. Up to now instances have been observed of an imbalance in the plans and the occurrence of partial disproportions in the course of carrying them out.

For example, according to the calculations of the Ninth Five-Year Plan the money income of the population was to increase by 40-41 percent, and retail trade turnover by 42 percent in order to more fully satisfy the current and deferred demand of the population [11, p 179; 21, p 285]. In the course of carrying out the plan, as a rule, under the influence of objective factors, it was possible to increase commodity turnover by only 40 percent in comparison with 1966-1970. At the same time, the growth of the money income of the workers not only did not slow down, but accelerated in comparison with the plan, reaching 42 percent [12, p 113].

The CPSU has decisively rejected voluntaristic planning methods which would lead to disproportions. But a violation of proportionality can also be caused by shortcomings in the elaboration and organization of plan fulfillment, for example, with a unilateral correcting of the planning calculations. Conditions leading to imbalance are to be found in the very method of constructing the national economic balance in which the individual balances are worked out in isolation and do not provide strict coordinating of the physical and value aspects of social product.

The necessity of a thorough study of the processes of distribution and redistribution of income arose in line with the changeover from predominantly extensive to the intensive type of expanded reproduction, and from administrative management methods to economic ones based on a thorough consideration of economic interests. The problem of ensuring proportional

development of social production was emphasized in the materials of the 25th CPSU Congress. The Basic Directions for the Development of the Soviet National Economy in 1976-1980 in the area of improving planning provide "to ensure the balancing of the plans on the basis of improving the system of physical and value balances and the balances of production capacity and labor resources" [13, p 171].

The theoretical basis for the drawing up of a national income balance is the Marxist teachings on a commodity as a unity of value and consumer value, and the Marxist theory of sales and social reproduction. The unity and opposition of the two aspects of a commodity determine the objective balancing of the two aspects of net product. The value of net product is manifested in the varius primary income the source of which is the process of creating value. But the real content of income is the material elements of net product in which this income can be realized.

In that portion of the product which is used as income directly in a physical form, these two aspects are inseparably linked and thus their balancing comes down to a uniform monetary evaluation in the production stage and the consumption stage. But for the basic portion of the product which assumes the form of a commodity, value is determined in the form of money income from its material embodiment and carries out its own independent movement in distribution and redistribution.

Any changes in the distribution of money income can be carried out only under the condition of the corresponding changes in the physical composition of the net product, and in turn, the changes in the production of net product require a different distribution of income. The balancing of the physical-material and value aspects of net product is manifested in the process of selling the commodities. A violating of this natural balancing means the appearance of a relative overproduction or scarcity of the goods, and in turn influences the formation of income. With a market economy, proportionality is corrected basically spontaneously, by the action of the law of supply and demand, and this replaces the real expression of income by price changes. Under the conditions of socialist planned production, the proportionality of the material and value composition of net product should be consciously regulated by society through the planned determination and changing of not only the production process but also the movement of income. The balance method is the implement for this complete control. Hence, the fuller depiction of the process of the movement of income in the national income balance is not an end in itself. It is essential not only for clarifying the statistical calculations, but primarily for a planned effect on the shaping of the proportions.

The movement of net product in a republic is reflected in the balance of social product and national income, in the balance of the money income and expenditures of the public, in the state budget of the republic and in the balance of financial resources.

The balance of social product and national income coordinates aggregate social product and its use in the replacement fund, the accumulation fund and the consumption fund. The balance of the money income and expenditures of the public coordinates, as the very name indicates, the monetary receipts of the population with their expenditure and savings. Its basic purpose is to control monetary circulation. It is compiled on the basis of banking information and is used for the calculations of the Gosbank cash plan. This balance is used for calculations of the personal consumption fund of the public, but in the income portion is not linked to the national income balance in which the stage of income distribution is not worked out. And the money income of the population received at the stage of the primary distribution of national income here merges with the derivative income and with the receipts of money from outside the republic. In addition, this balance does not encompass the portion of income consumed in kind and on the expenditure side it includes not only purchases for consumption, but also for the replacement of production expenditures of the private farm and individual construction. Thus, it is not tied to the national income balance.

The state budget also has its specific purpose of ensuring an equilibrium of the money receipts and disbursements of the state. The state budget of a republic does not include that portion of the centralized net income which is received from the Union-level enterprises directly by the general Union budget. In the income of a republic budget the receipts from primary and derivative income are also merged together, and for a number of items (in addition to basic state taxes, operations related to state borrowings and lotteries), the income from the population and the enterprises is not differentiated. The classification of the expenditures of the state budget differs significantly from the classification of the expenditures in the national income balance. For example, expenditures on science and art in the budget are accounted for along with the expenditures on sociocultural measures included in the public consumption funds. A significant portion of expenditures on the housing and utility system (put in the balance of social product and national income as part of the service sphere) is included in the public consumption funds, but in the budget is reflected in the section of expenditures on the national economy. In addition, the classification of expenditures by expenditure elements does not provide an isolating of material expenditures, the payment of services and disbursements to the public.

The data of the state budget are used in the calculations of the consumption fund of national income, but here, as was already pointed out, current material expenditures can be determined only tentatively.

The financial resource balance which is drawn up in the republics encompasses, in addition to the republic state budget, also the net income and other resources of the republic-level enterprises, but does not reflect the finances of the enterprises and sectors of the Union level which comprise a significant portion of the republic's industry. It cannot be coordinated with the national income balance. As was pointed out by B. L. Isayev "the

currently existing balance is a set of documents and not an integrated system" [29, p 270].

The fact that in the system of the national economic balance basic attention has been paid to coordinating the two aspects of the balance, that is, to the presence and use of certain resources, can be explained by the historical conditions for the development of Soviet balance statistics and planning. But under the conditions of developed socialism, such an approach is insufficient. There must be a close coordination between the individual balances. In order that the national economic balance be a more effective planning instrument, it within a single system should reflect not only the end result of all national economic turnover, but also the turnover process itself.

There is a method which makes it possible to depict national economic turnover in the form of interrelated flows of money and goods. This is the double entry method which is known throughout the world and employed in accountancy. During the postwar years this method has been widely used also on the macroeconomic level in the statistics of the capitalist nations under the name of "national accounting." The UN Statistical Commission has worked out and approved a standard system of national accounts; since 1958, the data published periodically on the basis of this system have been of great significance for international comparisons.

Up to the middle of the 1960's, in Soviet economic literature the method of national accounting was basically viewed from the aspect of criticizing anti-Marxist theoretical concepts which permeated bourgeois statistics such as the theory of production factors and Keynesianism. However, while rejecting these alien theories, it would be incorrect to totally deny the very method as an instrument of analysis. In later research conducted by the Laboratory for Financial Planning Models of the TsEMI of the USSR Academy of Sciences [60] and with particular thoroughness in the works of B. L. Isayev [28, 29], the positive traits of the designated method were brought out, a detailed comparison of it with the system of the national economic balance employed in the USSR was made [27], and the necessity and possibility were established of using the double entry principle in Soviet balance statistics. B. L. Isayev has worked out the theory and methods of drawing up an aggregate material-financial balance of the USSR on the basis of the double entry method and aggregate national economic accounts.

The method of aggregate national economic accounts comes down to the following basic provisions.

1. All economic activity is viewed as an aggregate of definite operations (for example, production, allocation of income, consumption, accumulation, and foreign economic ties), each of which is accounted for on a separate account which has two sides, income and expenditure.

2. The principals of economic operations are considered to be the economic units which have been grouped by definite features (production enterprises,

institutions in the nonproductive sphere, the financial and credit system, and the population), and the operations are accounted for on separate accounts for each principal.

3. Economic turnover is viewed in the form of the flows of money or commodity resources between the principals, and this is reflected by the double entry in the designated system of accounts, so that for the income on one account there is a corresponding expenditure on another.

The designated accounting system cannot be identified with the accountancy for the activities of individual economic units. It is an aggregate national economic accounting, since, in the first place, not each individual economic act (buying and selling or the transfer of income) is accounted for, but rather the operations are accounted for as a total during the year or another definite period in terms of the aggregate information. Secondly, the principals of the accounting have been aggregated on the scale of the national economy of the country or region by economic features.

Due to the use of the double entry principle, all economic information on the movement of product and its value comprises a single integrated system, and this corresponds to the actual process of reproduction. In such an accounting system, all the individual balances are organically interrelated, and the internal relationship between the material and value aspects of reproduction cannot be unilaterally violated in the elaboration of one or another balance.

The name "national accounting" employed in state statistics and in the works of researchers in the capitalist nations is derived from the term "national income." Terminologically it is inaccurate and should be replaced. B. L. Isayev in his works has referred to the accounts of the aggregate material and financial balance. In our view, the name "aggregate national economic accounts" would also be applicable.

The aggregate national economic accounts have one other essential advantage in comparison with the presently employed balance system. The matrix form of entry is well adapted for mathematical description and modeling. Academician V. S. Menchinov has foreseen the development of social accounting on the basis of banking information on financial flows in this direction [47, p 179].

The aggregate national economic accounts, as was pointed out above, reflect all economic turnover in the form of money and commodity flows between the various principals as the poles of the flow. Here the basic principle of the theory of circulation has been employed, that is, the total of all the incoming flows equals the total of the outgoing. The movement of product and its value from production to consumption forms the opposite "commodity--money" and "money--commodity" flows, and this makes it possible to depict both the "economic tables" of F. Quesney and the reproduction schemes of K. Marx in the form of circulation schemes. If one isolates from the commodity flows the movement of the replacement fund which forms a closed

circle within the production sphere itself, then the remaining portion is made up of the "product--income" and "income--product" flows, the equality of which is caused by the quantitative agreement of net product and national income. The redistribution which comprises the "income--income" flows does not change the total of national income.

In the systems of "national accounting" which are constructed on the basis of bourgeois theoretical concepts, the providing of services, including the "services" of the government and other imaginary services is equated to the production of goods, and for this reason the total of the flows of goods and services exceeds the amount of net product. In the system proposed by us, the flows of income in the sphere of services, the state and science are divided into the redistribution flows and the flows of material expenditures, and this maintains the equality between net product and its value.

The choice of the principals the income of which is shown in the aggregate accounts and their classification depend upon the specific task of the accounting and analysis. For working out a balance of net product and national income in a republic in the most aggregated form it is possible to limit oneself to isolating several aggregate accounts: the population of the republic, the enterprises in the sphere of material production and distribution, the service sphere, the state budget of the republic, and the external principals, that is, the Union budget, the general Union ministries and departments, and so forth.

The method of aggregate national economic accounts is closely tied to the intersectorial balance of product production and distribution. The well known English statistician R. Stone who headed the expert group on elaborating a standard system of national accounts in the United Nations has viewed the "expenditures--output" table (that is, the basic portion of the intersectorial balance) as an extension of the production account [61, p 19], since in the system of national accounts information on production is provided as a whole for the national economy or for consolidated groups of actual (economic) sectors, while the "expenditures--output" table shows the intersectorial relationships as regards production consumption. The breaking down of production in terms of "pure" sectors makes it possible to disclose the links of end and intermediate product, to coordinate the satisfying of end demand not only with the direct expenditures in each sector but also with the indirect ones, and to determine what influence the development of imports and exports has on production. This cannot be done on the basis of an analysis of the financial flows.

Under the conditions when the elaboration of the intersectorial balances outdistances the development of the financial ones, the aggregate national economic accounts can be viewed as a broadening and extension of the intersectorial production balances, since the latter do not properly reflect the processes of distribution and the movement of income. The very constructing of the intersectorial balance contains an equality between end product and the total income and amortization of the fixed productive

capital, that is, between the total of the columns of quadrant II and the total of the lines of quandrant III: $\sum_{i=1}^{n} y_i = \sum_{j=1}^{n} z_j$. But the total equality still does not determine the shaping of demand for the directions of realization isolated in the balance (personal and social consumption, capital investments, the accumulation of material stocks and exports). For coordinating primary income with net product, information is required on the money flows of redistribution, and this would be provided by the aggregate national economic accounts. In the regional aspect of a balance, particular problems arise with the external economic ties, and these also cannot be solved solely on the basis of an intersectorial analysis of the movement of product. As was pointed out by M. Eydel'man [67, p 81] and V. Kossov [34, p 32], the redistribution of income should be reflected in quandrant IV of the intersectorial balance. But here at best certain derivative income can be shown, and not the entire redistribution process. In practical terms quandrant IV remains undeveloped, so that the coordinating of income with end product goes no farther than the designated general equality. The insufficient elaboration of quandrant IV in the intersectorial balance has been mentioned by A. Aganbegyan and A. Granberg [14, p 99], as well as by authors of research on the territorial intersectorial balances [38, p 154].

Thus, it must be recognized that it is not of fundamental significance whether the intersectorial balance is considered to be the development and supplement to the aggregate national economic accounting, as R. Stone has proposed, or, on the contrary, the aggregate national economic accounts are the continuation of the intersectorial balance and aggregate financial plan. Each of these instruments of national economic accounting and planning has its specific purpose, but it is important to link them into a single integrated system of balances.

The movement of net product and the national income of a republic and the formation of the balance of external economic relations are shown in Fig. 1.

The given diagram illustrates the circulation of income in which individual balances (designated by the ordinal numbers 1-7) are organically interrelated by flows. Each balance can be represented in the form of an account. In addition, separate accounts are kept for consumption and accumulation (8 and 9). Each income flow in the diagram is designated by two figures: the first means the expenditure under any account, and the second is the income for another account. The flows of goods (1.8, 1.9) are directed to the accounts of consumption and accumulation, and should ensure the utilization of the end income. In terms of physical composition, these flows include the goods which are imported from other republics, but do not contain the goods exported from the republic. The diagram shows only the difference of these flows, that is the balance of the imports and exports of goods (1.7^c). This flow in terms of content is a commodity one, but in terms of amount should equal the balance of income redistribution, and for this reason in the balance of social product and national income it is shown as a part of income.

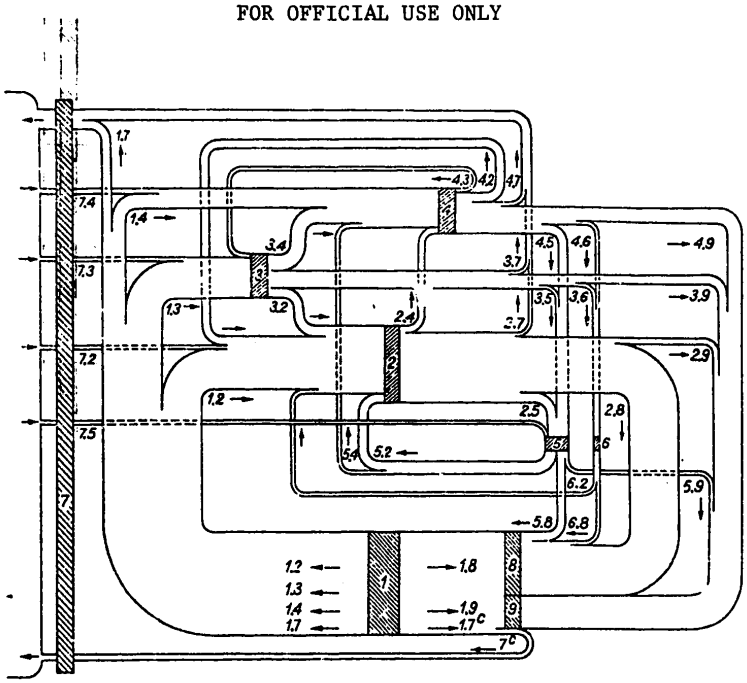

Fig. 1. The Movement of Net Product and National Income in an Union Republic

Legend for Fig. 1.*

1. The balance of the production and use of national income in a republic: 1.2--primary income of the population; 1.3--primary income of the enterprises in material production and the distribution sphere; 1.4--primary income of the republic state budget and the social security budget; 1.7--primary income of the Union budget and deductions into the centralized specific funds; 1.7^c--the net export of goods (the balance of relationships with other republics); 1.8--consumption of net product; 1.9--accumulation of net product. 1.2+1.3+1.4+1.7 (the national income of the republic) = 1.8+1.9±1.7^c (net product).

2. The balance of the income and expenditures of the population: 3.2--bonuses and other payments to the workers from the net income of enterprises of the production and distribution sphere; 4.2--pensions, aid, scholarships and other payments to the population from the republic state budget and from the social security funds; 5.2--wages and other payments to the workers in the service sphere; 6.2--wages and other payments to the population in scientific institutions and the state apparatus; 7.2--the

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*The width of the flows in the diagram does not correspond to their actual quantitative relationships.

receipt of income by the republic population from the Union budget and other all-Union resources; 2.4--taxes and other payments by the population to the republic state budget; 2.5--the payment for services by the public; 2.7--taxes and other payments by the population to the Union budget and to other general Union resources; 2.8--the end income of the population utilized for the consumption of material goods; 2.9--end income of the population utilized for the accumulation of material goods, money savings and the increase in deposits at savings banks.

3. The balance of the net income of enterprises and associations in the sphere of material production: 4.3--allocations from the republic state budget to cover a shortage or increase working capital, subsidies and other payments to the enterprises; 7.3--allocations to the republic enterprises from the Union budget and other general Union resources; 3.4--payments from the net income of the enterprises to the republic state budget; 3.5--expenditures from the net income of enterprises for sociocultural measures (with the exception of aid, scholarships and other payments); 3.6--expenditures from the net income of the enterprises on science and the support of management bodies; 3.7--payments from the net income of the enterprises to the Union budget and to other Union resources; 3.9--the net income of the enterprises used for accumulation and the increase of credit resources.

4. The state budget of the republic and the republic social security budget: 5.4--payments to the budget from the net income of the enterprises in the service sphere, taxes and other deductions; 7.4--receipts by the republic budget from the Union one under offsetting transactions; 4.5--expenditures from the state budget and the social security budget for sociocultural measures (with the exception of capital investments); 4.6--expenditures from the state budget on science and the support of the state and legal systems (with the exception of capital investments); 4.7--payments on offsetting transactions from the state budget of the republic and the social security budget to the Union budget; 4.9--allocations from the republic state budget for capital investments and for increasing credit resources.

5. The balance of income and expenditures of the enterprises and institutions serving the public: 7.5--receipts from the Union budget and other general Union resources for sociocultural measures; 5.8--material expenditures of enterprises and institutions in the service sphere; 5.9--net income of the enterprises and institutions serving the public.

6. The balance of the income and expenditures of scientific and state administrative institutions: 6.8--material expenditures of the scientific and administrative institutions.

7. The balance of economic ties with other Union republics and general Union resources (1.7+2.2+3.7+4.7 = 7.2+ 7.3+7.4+7.5+1.7[c]).

8. The consumption fund of national income (1.8 = 2.8+5.8+6.8).

9. The accumulation fund of national income (1.9 = 2.9+3.9+4.9+5.9).

In the diagram one can see the interrelationship of the balances which are presently worked out: the balance for social product and national income (1); the balance of the money income and expenditures of the population (in the diagram balance (2) encompasses both the monetary and in-kind income); the republic state budget (4). For planning and economic incentives of great importance would be the balances for enterprise finances encompassing all the production enterprises and enerprises in the distribution sphere regardless of affiliation (3), the financial balances of the service sphere (5), the scientific and management institutions (6), and the balance of external economic relations (7). The method of aggregate national economic accounts makes it possible to see these balances coordinated in a single system.

According to the system elaborated at the Laboratory for Financial Planning Models of the TsEMI, on an experimental basis several aggregate material and financial balances for Estonia have already been drawn up, including the report balances for 1961, 1966 and 1972 and the 1971 plan balance. The correspondence of the accounts in the material and financial balance of Estonia in an aggregate form is shown in Fig. 2.

The production account reflects the production activities in a dual manner: a) by principals, that is by the ministries of the production sphere, the kolkhozes and the private farms of the population; b) in terms of product types. The production account is close to the intersectorial balance of product production and distribution broken down for the economic sectors. Here in the 1972 balance, the account is kept separately for the Union and republic departments. The account corresponds to the distribution account which would include net product, and to the accumulation account which would include the amortization of fixed capital. This corresponds to the scheme of an intersectorial balance in which amortization along with the income is balanced with the end product. Correspondingly in the capital investments the portion for replacing wear and the portion forming net accumulation are isolated.

The income distribution account reflects primary distribution, redistribution, and in addition, the distribution of credit resources. Here the principals of the accounting are also the institutions of the financial and credit systems. The financing of current expenditures in the sphere of gratis services from the republic and Union budgets is considered in the accounts of the corresponding ministries to which the allocations are given. The given account also considers the providing of paid services in terms of types and consumers. The internal turnovers for the account reflect the redistribution of income. The balance of the accounts of the ministries and the population is transferred to the consumption and accumulation accounts. Accumulation in such an interpretation includes the increase of

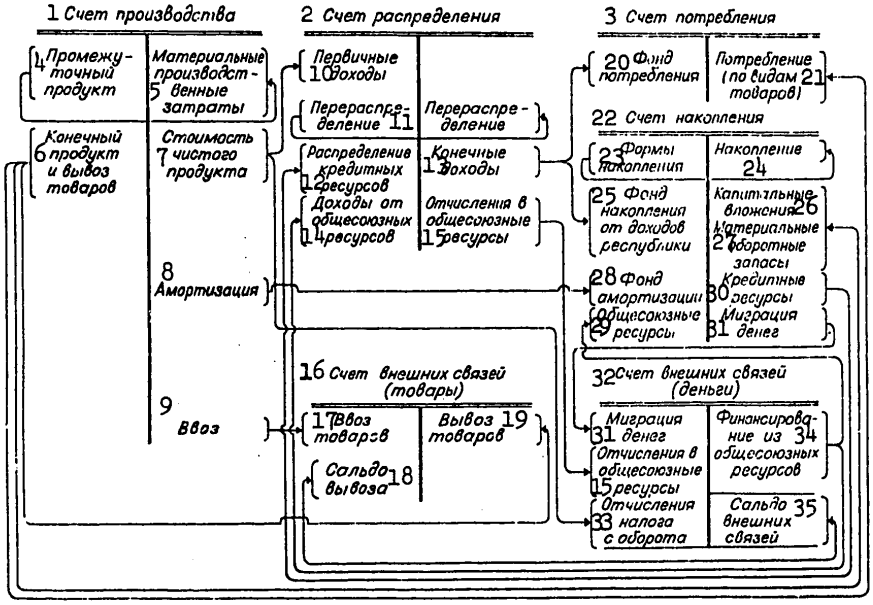

Fig. 2. Correspondence of Aggregate Accounts of Material-Financial Balance of Estonia for 1972

Key: 1--Production account; 2--Distribution account; 3--Consumption account; 4--Intermediate product; 5--Material production expenditure; 6--End product and exporting of goods; 7--Value of net product; 8--Amortization; 9--Imports; 10--Primary income; 11--Redistribution; 12--Distribution of credit resources; 13--End income; 14--Income from general Union resources; 15--Deductions into general Union resources; 16--Account of foreign ties (commodities); 17--Inputs of commodities; 18--Export balance; 19--Export of commodities; 20--Consumption fund; 21--Consumption (by types of commodities); 22--Accumulation account; 23--Accumulation forms; 24--Accumulation; 25--Accumulation fund from republic income; 26--Capital investments; 27--Material working stocks; 28--Amortization fund; 29--General Union resources; 30--Credit resources; 31--Migration of money; 32--Account of external ties (money); 33--Turnover tax; 34--Financing from general Union resources; 35--Balance of external ties.

credit resources (for example, the savings of the population are also included in accumulation). The formation of credit resources is shown on the income side of the corresponding distribution account and on the expenditure side of the accumulation account. The increase in the total short-term credits is shown along with the income of the recipients (the corresponding ministries or the population), while the increase of long-term crediting is

again transferred to the accumulation account. The introduction of these formal circulations somewhat encumbers the balance, but at the same time makes it possible to trace the formation of the financial and credit sources of accumulation.

The consumption account, as in the intersectorial balance, reflects personal and social consumption by product types, including personal consumption from the migration of money.

The accumulation account, as was noted above, reflects, on the one hand, monetary accumulation, and on the other, the real accumulation for the economic sectors and individual forms of investments. This corresponds to the production account in terms of the commodity types. The difference (the accumulation of credit resources) again goes to the distribution account, while the savings of cash by the population goes to the account of external ties, and this equals the exporting of money beyond the republic.

In addition to the designated dual circulation the given account reflects not only the net but also the so-called gross accumulation which includes capital investments from amortization and major overhauls. This corresponds to the practices of capital investment planning and financing, and is of importance for balancing with the financing sources. Accounting for accumulation in terms of physical composition ensures coordination with the national income balance.

The account of the external ties of a republic concludes the system of the aggregate accounts of the material and financial balance. In Fig. 2 it is divided into two accounts, one of which shows the movement of commodities (imports and exports), and the other the movement of income. The latter includes the receipts from the republic by the Union budget and the other centralized funds, as well as the migration of money and the cash savings of the public; on the other side, there are financing from the Union budget and other general Union resources, the receipt of credit resources from outside, the influx of cash by migration and the receiving of cash supplies by the republic Gosbank office. With the accurate compilation of the balance and the absence of statistical errors, the balance of goods and money should be equal, and both accounts are closed. Thus, the external ties of the republic are shown not in a balanced but rather a full form, considering the movement of the centralized credit resources and the emission of money.

In technical terms it is convenient to draw up the correspondence of the accounts in the form of an input-output table, where income is shown along the vertical lines, and the expenditure of each account in the columns (Table 5).

The input-output method with reporting information available makes it possible to keep the account with any degree of detail. The material and financial balance of Estonia in its full form includes accounts for 20

Table 5

Aggregate Table of Material and Financial Balance of Estonia in an Input-Output Form

Resources (account income)	Resource use (account expenditure)					
	1. Счет производства	2. Счет распределения доходов	3. Счет потребления	4. Счет накопления	5. Счет внешних связей	total
1. Счет производства	$a_{1.1}$		$a_{1.3}$	$a_{1.4}$	$a_{1.5}$	A_1
2. Счет распределения доходов	$a_{2.1}$	$a_{2.2}$		$a_{2.4}$	$a_{2.5}$	A_2
3. Счет потребления		$a_{3.2}$				A_3
4. Счет накопления	$a_{4.1}$	$a_{4.2}$		$a_{4.4}$	$a_{4.5}$	A_4
5. Счет внешних связей	$a_{5.1}$	$a_{5.2}$		$a_{5.4}$	$a_{5.5}$	A_5
total	A_1	A_2	A_3	A_4	A_5	

Key: 1--Production account; 2--Income distribution account; 3--Consumption account; 4--Accumulation account; 5--Account of external ties.

product types, production, distribution and accumulation accounts for 40 sectors, for 10 types of services, for 8 sectors in the nonproductive sphere, for the types of credit, for the institutions of the financial and credit system, for the types of their income and expenditures, and so forth. The aggregate table comprises a square matrix with a size of 260 x 260 [28, p 121]. It would also be possible to work out a more detailed system of subaccounts reflecting not only the sectorial but also the territorial, social or other aspects. The additional information could be formulated in the form of separate tables for each account, without altering the overall system of accounts.

It would be possible also to supplement the system of accounts, for example, by isolating an account of product sales. This would become a useful instrument for analyzing the distribution channels, or for balancing material and technical supply or retail commodity turnover with the corresponding income. In the above-described systems of accounts, the sales process is reflected in the entries which combine the production account with the accounts of consumption, accumulation and external ties. However the designated circulations bring together both the sale of commodities as well as the in-kind utilization of products which still has a significant proportional amount in agriculture.

An experimental check in Estonia has shown the fundamental possibility of using the method of national economic accounts and on this basis of working out an aggregate balance which, in comparison with the tables of the

presently used national economic balance, provides more complete and thoroughly coordinated information on the movement of net product and national income. At the same time the experiment disclosed practical difficulties related to the statistical information. The indicators of modern statistical reporting often are not interrelated, and this is incompatible with the principle of double entry of the operations on which the input-output form of the balance is based. The drawing up of the balance would necessitate additional information, but this is justified by the analytical value of the material and financial balance for national economic planning.

Thus, the proposed method of aggregate national economic accounts has broad prospects for use. In our view, it can be employed in the further elaboration of the automated state statistics system (ASGS) and the automated planning calculation system (ASPR). Of course, the change in the method of the aggregate national economic accounting requires a careful elaboration and cannot be done in a short period of time. But even now it is essential to improve the statistical information. This corresponds to the tasks posed by the 25th CPSU Congress and the 22d Congress of the Latvian Communist Party for the statistical and planning bodies.

The method of aggregate national economic accounts would also help in the strict coordination of the movement of net product and fixed capital. For this, an account of social wealth could be introduced into the system of accounts, and this account, also by the double entry method, would show the relationship of accumulated wealth with the consumption and accumulation of national income. This would make it possible to more clearly differentiate production and nonproduction accumulation, and would also help in the accounting for and planning of material expenditures as part of social consumption, in linking the conditionally transferred amortization of nonproductive fixed capital with its actual movement, that is, with the wear, withdrawal and replacement.

The method could also serve as a useful instrument for coordinating the balance of net product and national income with the labor resource balance, as well as for analyzing the distribution of the labor force and social labor productivity in terms of the national economic sectors.

However the proposed method would be of particular significance for analyzing the distribution and redistribution of national income, that stage of its movement which in the present balance of social product and national income of the Union republics is lacking. The distribution accounts would show the primary distribution of income, including in terms of the production sectors and the forms of ownership. This is of primary significance for controlling the proportionality of the growth of wages and labor productivity.

Data on primary distribution are presently worked out in the intersectorial balances of product production and distribution. But not primary but rather end income is related to the end product which is shown in the second quadrant of the balance. The distribution accounts, in reflecting

the movement of income between the population, the enterprises and the state budget, would provide a transition from primary to end income. This would ensure sounder planning and the regulation of money income and consumption of the population, as well as financial resources for capital investments and public consumption.

In the process of moving from primary to end income, it would be advisable to isolate two aspects: the formation of derivative income and the transfer or confiscation of income for redistribution. Such a sequence is more convenient for calculating and analyzing the end income of the population and the enterprises, since the derivative income is in a definite quantitative ratio with primary income, while the withdrawals and transfers of income are related to aggregate (primary and derived) income.

For example, if the ratio of the derived income of the population for each source d_{i1} to the primary income of the population D is expressed by the coefficient $\frac{d_{i1}}{D_1} = k_{i1}$, then the aggregate income of the population is defined as $D_1 \sum_i k_{i1}$. The redistribution transfers of the income of the population through the corresponding channels in turn are expressed by coefficients for the ratio to aggregate income $\frac{d_{1i}}{D_1 \sum_i k_{i1}} = k_{1i}$. Then the end income of the population can be expressed by the formula $D_1^* = D_1 \sum_i k_i \left(1 - \sum_i k_{1i}\right)$.

Analogous redistribution coefficients would be easily determined in relation to the primary and aggregate income of enterprises in the production sphere, and to the aggregate income of the republic state budget, and the institutions in the service sphere, science and management.

The elaboration of the various redistribution coefficients would be of essential significance for an analysis, forecasting and planning of the redistribution flows and the forming of end income, and particularly the flows which link the republic with the general Union resources which in their aggregate form the national income redistribution balance. The necessity of compiling a balance of the financial relationships of a republic with the general Union centralized fund of financial resources and their more thorough analysis has been convincingly established by A. G. Zverev [26, pp 72, 80].

A calculating of the interrepublic redistribution of national income is particularly important for analyzing the territorial ratios between the consumption and accumulation funds. In comparing the per capita consumption and accumulation on a territorial breakdown with the general Union average amount of these indicators, various combinations of the designated ratios are disclosed [54, p 28]. The authors link these ratios to the

task of evening out the economic development levels. At the same time, the specific income redistribution mechanism which would provide the formation of the required territorial ratios of consumption and accumulation has not been worked out. Using the intersectorial balances research has been carried out on the interrepublic ties in their material and physical aspect. But, as the authors of this research have pointed out [38, p 154], on the basis of the intersectorial balances it is impossible with sufficient completeness to examine the financial relationships. The aggregate national economic accounts and the material and financial balances of the Union republics should serve as the instrument for such analysis.

Analysis of redistribution becomes particularly urgent in line with the elaboration of models for forecasting the economic growth of the Union republics, since the forecasted amount of national income which is usable in the republic depends upon the redistribution balance.

For example, in the LAT-1 model worked out by the Economics Institute of the Latvian Academy of Sciences, the national income usable in the economy Y_t^u is related to the produced income Y_t by the linear equation $Y_t^u = \mu_0 + \mu_1 Y_t$, where μ_0 and μ_1--parameters set imperically [16, p 78]. On the basis of the statistical processing of the dynamic series for 1960-1970, a coefficient has been set for μ_1 equal to 0.839. In the model it is assumed that the existing ratio of redistribution will be maintained for the period being forecasted.

The employees of the Economics Institute of the Estonian Academy of Sciences have also proposed another possible approach to an optimum dynamic model: under the condition of ensuring the set level and structure of consumption, to maximize the export balance [25, p 46].

With either approach, the positing of the problem has conditionally been isolated from national economic planning as a general system, and for this reason it may be incorrect. The questions of redistribution should be settled on a scale of the USSR, considering the differences in the economic levels of the Union republics, the productive resources available in them, with consideration given to specialization and other factors. In any instance it is essential to improve the national economic accounting of the movement of product and its value between the republics in order to ensure balanced economic growth.

CHAPTER 3: CERTAIN METHODOLOGICAL PROBLEMS IN THE ACCOUNTING AND ANALYSIS OF NATIONAL INCOME

1. The Production of National Income and the Factors of Its Growth

National income, as was pointed out in Chapter 1, is the converted value form of net product. The value which is newly created in the production process is initially embodied in a certain share of the product of each enterprise and sector, that is, in the net product. The value forms of necessary and surplus product in this stage still do not have the qualitative certainty of the fund of the means of life and the consumption fund, that is, the physical structure of the newly created value in the production stage still does not correspond to the structure of net product. The newly created value is still not income, but rather the source of income. Its relationship to net product is manifested in the two-way movement of value and product in the sales process. On the one hand, in this process the net product assumes the form of gross income, and is broken down into the various specific forms of income. On the other hand, in the same sales process, the distributed national income is converted into real income, in being embodied in the elements of net product.

The movement of value through the stages of production, distribution and use is the opposite to the movement of net product as the aggregate of consumer values. The balance of social product and national income reflects the result of this movement with the balancing of the physical and value aspects of net product. Since in directly social production the balancing is achieved on a planned basis, it is possible ahead of time to presuppose a quantitative congruity of the value of necessary and surplus product to their qualitatively definite forms. For this reason, an analysis of the creation of national income, like the factors of its growth and its sectorial and social structure, at the same time discloses the growth factors and structure of net product.

Aggregate and net product in the national economic balance is accounted for primarily in terms of forms of ownership (Table 6).

The state enterprises encompass almost 96 percent of the industrial production, virtually all transportation and communications, 78 percent of the

Table 6

The Social Structure of the Production of Aggregate Social Product and Net Product in Latvia, %

Type of Enterprise	Aggregate Social Product				Net Product
	1960	1965	1970	1975	1975
State enterprises	79.7	81.5	81.2	83.9	81.6
Consumer cooperative enterprises	1.9	1.8	1.8	1.7	2.2
Kolkhozes and interkolkhoze organizations	8.0	8.3	9.4	9.2	7.7
Private farms of population	10.4	8.4	7.6	5.2	8.5

distribution sphere, including all material and technical supply, and 31 percent of agricultural production.

The activities of the economic units (enterprises) having subsidiary production and ancillary types of activities are accounted for in statistics along sectorial lines. For example, the industrial sector includes not only the independent industrial enterprises, but also the subsidiary industrial production of sovkhozes (the repair of agricultural equipment, and so forth), construction and transport organizations, consumer service enterprises, and so forth. On the other hand, the nonindustrial activities of the industrial enterprises are classified in the corresponding sector, for example, in construction, transportation or trade. For analyzing the formation and use of income, it is essential in parallel to account for the real economic sectors and the existing organizational structure (in terms of administrative affiliation), classifying the enterprises in a certain sector according to the basic type of operations. An exception is construction activities which are carried out by the direct labor method by the enterprises having capital construction departments operatin on an independent balance sheet.

For the analysis of production in an Union republic it is advisable in the calculation to also divide the enterprises into republic and Union-level, since in the planning of their operations and in the distribution and use of net income, there are essential differences between them. The Union-level enterprises produce 37 percent of the republic's industrial product. The proportional amount of the consumer cooperatives equals 1.7 percent of the gross product of the republic and 2.2 percent of its net product. But in the net product of trade and public dining, its share is over 30 percent, and in the procurement of agricultural products, 24 percent. It is advisable to consider individually the operations of consumer cooperatives in rural localities and in the cities.

The share of kolkhoz property is 9.2 percent of the aggregate product and 7.7 percent of the net product of the republic. This has increased in comparison with 1960-1965, regardless of the reduction in the number of kolkhoz workers related to the transformation of a certain portion of the kolkhozes into state farms. The proportional amount of the kolkhozes in the gross agricultural product has increased from 35.7 percent in 1965 up to 38 percent in 1975. The gross agricultural product of the kolkhozes in actual prices over the designated period rose by 277 million rubles, and this was a consequence of the increase in the state purchasing prices. The physical volume of the gross product in 1965 prices increased by 64 million rubles [43, p 240], that is, the 213 million rubles of increase was brought about by an increase in purchasing prices, the surpayments for above-plan deliveries, by the increase in the share of commodity product and an improvement in product quality. The course outlined by the March (1965) Plenum of the CPSU Central Committee has ensured the overcoming of the lag in agriculture and its transition to an intensive path of development. Due to the increased income, the material interest of the kolkhoz members has risen and the physical plant of the kolkhozes has been strengthened. Due to the far-sighted policy of the party during the Ninth Five-Year Plan, regardless of the extremely unfavorable weather conditions, the average annual volume of agricultural product increased by 13 percent for the USSR, and by 9 percent for Latvia [43, p 172]. Here, the gross agricultural product rose by 21 percent in the nationalized production of the Latvian kolkhozes and sovkhozes.

The strengthening of kolkhoz ownership and the increased level of the nationalization of production are also expressed in the broadening of the sphere of activities of the kolkhozes and in the rapid growth of kolkhoz industry, trades and construction. In the industrial production of the republic, the proportional amount of kolkhoz industry is 3 percent, and this is over 23 percent of the gross product of the kolkhozes (including the product of the fishing kolkhozes and the interkolkhoz industrial enterprises). The necessity has arisen of a more detailed consideration of kolkhoz industry, reflecting the expenditures and results of production in the accounting.

The private farms of the kolkhoz members, workers and white collar personnel maintain a significant proportional amount in agriculture, and provide 31 percent of its gross product. Prior to 1963, this product exceeded one-half of the gross agricultural product. As nationalized production has risen, the share of the private farms has systematically declined. While the gross product of the kolkhozes and state farms in 1975 was 163 percent in relation to 1960, for all categories of farms it rose only by 26 percent [42, p 186; 43, pp 170, 171]. Hence, the product of the private farms has declined over this period in terms of the physical volume. However in monetary terms (in actual prices), it increased by 95 million rubles, or by 20 percent, in comparison with 1965, and this was caused by the increase in purchasing prices and the prices on the kolkhoz market.

The evaluation of gross product and particularly net product on the private farms of the population is difficult due to the semi-in-kind nature of production and the absence of sufficient and reliable information. Gross product, internal farm consumption, product produced for the market and personal consumption in kind are assessed in working out the balances for the basic types of product. But the commodity portion is valued in the average selling prices. But an evaluation of product consumed in kind raises arguments. It is incorrect to judge this product either in the average or state retail prices. The retail prices cover not only the production outlays but also the socially necessary transport expenditures, the expenditures on the industrial processing and the outlays of all the distribution elements. These elements which are absent or are insignificantly slight in consuming the product on the farms of the producers comprise a significant portion of the full cost and respectively the retail price of the product. For this reason then the product consumed in kind on the farms of the producers must not be valued in retail prices. But this is not the main thing. The evaluation problem also consists in the fact that the retail prices, with certain exceptions, consider the full amount of the surplus product, including differential land rent which basically is centralized in the net income of the state. On the other hand, for certain product types, for example, for meat, retail prices in the USSR are below the state purchasing prices and costs, that is surplus product is not realized by them. The related payments from the state budget are a redistribution of the rent received from other product. Hence, neither type of prices is applicable to the product consumed by the producers themselves.

It is theoretically generally recognized that the subsitiary farms of the kolkhoz members are a necessary addition of kolkhoz production at the achieved level of its socialization, that is, a sphere of the application of the labor force which is incompletely utilized in socialized production, and they are a source for obtaining that portion of the necessary means of life and national income which the socialized or nationalized farm cannot fully provide for the kolkhoz members. Thus, the private farms are a necessary element in the functioning and reproduction of the labor force. The kolkhoz members spend only a portion of the necessary labor and surplus labor on the socialized farm, and spend the other portion of necessary labor on the private farm. Hence the net product of the private farms enbodies only necessary product. In assessing the products consumed in kind at full value which would also include the value of surplus product, we would thereby assume that the kolkhoz workers spent not only necessary labor but also surplus labor for satisfying essential needs, and this is illogical.

The subsidiary farms of the workers as well as the white collar personnel of the sovkhozes and other state farms in rural localities differ somewhat in purpose and structure from the subsidiary farms of the kolkhoz members. Their necessity is declining for the reproduction of the labor force. However this does not turn them into a source of surplus product, with the

exception of instances when production ceases to be actually subsidiary, assuming a commodity form and becoming a source of surplus income.

Thus, a monetary evaluation of the agricultural product from private subsidiary farms, in our view, is overstated. But the product of the socialized farm is judged in the actual selling prices, basically in the state purchasing prices, and internal farm turnover is assessed in terms of costs. This means that the evaluation does not include a portion of the value of surplus product which is not realized on the farms themselves, that is, the evaluation is understated, and this has been specially pointed out in the statistical references [45, p 564]. The product from the private and socialized farms is accounted for in incommensurable prices. This partially explains the high proportional amount of the private subsidiary farms in the net agricultural product (over 40 percent), while in the gross product they comprise 30 percent, and in commodity product 20 percent [43, p 176]. In our view, it is essential to work out special conditional prices for judging the product consumed in kind from the private farms.

In addition to agricultural production, the gross and net product of the private farms includes the individual housing construction and major overhaul (about 2 percent of the net product of construction), artisan and handicraft production, fishing and hunting, the gathering of mushrooms and berries and other trades, and this comprises an insignificant portion of the income.

The private subsidiary farms of the kolkhoz members, workers and white collar personnel have been isolated in the statistics. From the viewpoint of the modern socioeconomic tasks, it would be essential to work out statistics for the income of the urban and rural population. The method of economic accounts makes it possible to carry out the calculation in such a grouping along with a calculation by social groups.

Both in the sectorial and social breakdown, the ratio of aggregate and net product should be analyzed.

The share of net product in the social product of Latvia has continuously declined (in percent):

1960--47.9	1968--44.2
1961--46.6	1969--43.8
1962--45.6	1970--43.7
1963--45.5	1971--43.2
1964--45.8	1972--42.7
1965--45.7	1973--42.0
1966--44.6	1974--42.8
1967--44.6	1975--42.1

The tendency for a decline in the proportional amount of net product is also observed for the USSR as a whole. It has declined from 47.7 percent in 1960 to 42.1 percent in 1975. In comparable prices such a trend at

first is not observed as the produced national income has grown almost at the same rate as aggregate social product. However, as was noted in Chapter 1, the actual growth of net product is reflected in the dynamics of utilized national income which has grown somewhat more slowly. For this reason its proportional amount in aggregate product has declined in comparable prices. The discrepancy in the proportional amount of national income in aggregate product as calculated in actual or comparable prices does not involve objective factors in the very process of creating value, as certain authors consider, but is to be explained rather by the shortcomings in calculating the produced income. This is affirmed by the data on interrepublic redistribution: Since the income utilized in the Latvian economy in comparable prices grows more slowly than the produced, the difference is automatically added to the balance of the external economic ties. Due to this difference the redistribution balance calculated in comparable 1965 prices over the 10 years increased by 431 million rubles, while in actual prices it declined by 35 million rubles.

In terms of the proportional amount of net product and its dynamics, significant differences are observed between the major sectors of the national economy. In industrial product, the proportional amount of net product has declined from 41 percent in 1960 to 35 percent in 1975. Since the share of industry has been growing in the republic, this decline has told on the proportional amount of all net product in the aggregate product. A portion of the value created in agriculture is realized in the industrial product (and correspondingly, in net product) by the turnover tax. But the share of the turnover tax has also been declining. Both the growing level of the division of labor and specialization as well as the change in the sectorial structure of industry and the price structure have been expressed in the growth of the share of material expenditures and the decline in the share of net product in industrial product.

In construction the proportional amount of net product, on the contrary, has increased: In 1961-1965 it was 41.7 percent of the product value, 43.8 percent in 1966-1970, and 46.5 percent in 1971-1975. The share of construction also rose somewhat in the social product of the republic, and this influences the proportional amount of net product in the direction of an increase.

In agriculture, the proportional amount of net product has declined, since with full mechanization and industrialization manual physical labor has been eliminated and the share of material expenditures has increased. But in comparison with industry and construction, the share of net product in gross agricultural product is higher, and in 1971-1975 it was 49 percent. For this reason the decline in the proportional amount of agricultural production further reduces the proportional amount of net product in aggregate product.

In the sectors of transportation and communications, net product comprises, according to the estimate of the TsSU, 57-58 percent of the gross product. Here the material expenditures are distributed between the production

sphere and the expenditures on serving the population by calculation. The method of this division is imperfect. But no matter now the method was improved, the calculation would always have a conditional nature. The portion of the gross income of transportation and communications which remains outside the balance of social product and national income should be equalized by the corresponding expenditures of the public and the institutions in the nonproductive sphere in the redistribution stage. Since the distribution stage is not worked out in the balance of the national income of the Union republics, the disruption of the balance, in particular from the incorrect distribution of the material expenditures of transportation and communications, remains undetected and is related to the balance of income redistribution between the republics.

In the distribution spheres (trade and public dining, material and technical supply and procurements), gross product is usually considered to be the realized trade surcharge (trade rebates) minus the payment for hired transport. This is necessary for a thorough consideration of the value of the net product. In the production sectors the product is accounted for in wholesale or procurement prices, and in transportation this is the value added by transporting, and in the distribution sectors the remaining portion of product value should be caught in the final selling prices. Such an approach means that along with the value added by productive labor in the distribution sphere, also present in its income is value created in the production sphere but not realized in the enterprise wholesale prices. For this reason, a large portion of the gross product in the sectors of the distribution sphere is made up of net product (81-83 percent). The share of material expenditures is relatively stable.

The ratio of the gross and net product of a republic is largely influenced by the amount of the turnover tax. As was pointed out above, the turnover tax "produced" in the Union republics is calculated on a centralized basis and is included in the net product of industry proportionately to the production volume of the taxable product. The "produced" turnover tax calculated in this manner does not coincide with the tax actually realized in the republics, mainly due to the importing and exporting of products which are taxed at the place of sale.

The method of calculating the amount of the turnover tax produced in an individual republic has long been disputed [17, 26, 37, 39, 51, 53, 57, 70]. In basing themselves on the correct judgment that value is created in production and not in the process of sales, many authors have proposed different methods for recalculating the turnover tax in order to bring the calculation of national income closer to the total of newly created value. But at the same time, any recalculation leads to a conditional evaluation of the produced product, and this to a greater or lesser degree is divorced from the actual movement of value.

The method of the TsSU defines the creation of value corresponding to the turnover tax at the place the taxable commodities are produced. But this does not bring the net product closer to the newly created value as the

turnover tax is an element directly of the price and not of the value of the commodities, and is part of the aggregate newly created value only in the total of the prices of all the goods.

A number of proposals has been aimed at eliminating the influence of the distribution function of the turnover tax. For this it has been proposed that its total be distributed proportionately to the number of workers with one or another method of reducing labor, usually proportionately to wages in material production. Even further going are the proposals which would calculate all net income or even all national income proportionately to the direct labor expenditures. These calculations can be useful, for example, for analyzing the creation of value in agriculture. But in terms of the net product in a republic, no recalculations in our view are advisable, since the various types of prices of the "value level" are fully divorced from real prices, real economic accountability and the formation of income. The amount of value under socialism, as in the times of K. Marx, cannot be "constructed." It cannot be subjected to direct measurement in working hours or in the number of annual employees, but rather requires an indirect expression in prices. The circumstance that the turnover tax as part of the price fulfills the function of distributing the newly created value is not eliminated by one or another method of national income accounting. For this reason the calculating of the turnover tax in the volume of actual sales on the territory of the republic must be considered the most correct and realistic approach to accounting for this tax in the Union republics. This conforms to the utilization of net product in actual prices, to the distribution of net income through the state budget, and to the actual circulation of the commodities.

Thus, the share of net product and the replacement fund in aggregate product is formed from the interaction of various factors, and above all from the structure of social production, and not merely from the savings in production expenditures. The ratio $\frac{c}{c+v+m}$ is often viewed as an indicator for the material intensiveness for all social production. However this is assumable only in simplified, single-product models of reproduction, since the concept of material intensiveness is the ratio of material expenditures to the volume of a uniform product. But in real reproduction, with its complicated structure, from the designated ratio it is impossible to judge the change in material intensiveness or production efficiency. Net product cannot be increased directly by reducing material expenditures. The savings of embodied labor is only a prerequisite for increasing national income, but in maintaining the previous production structure the additional income would be embodied in the growing unutilized production inventories. Net product is the result of the aggregate live labor of society, and for increasing net product it is not enough to save the labor embodied in the means of production, but rather it is essential to direct the released resources into production which is proportional to the demand, that is, to alter the structure of the expenditures of live social labor.

The initial factor for the growth of net product is the number of workers which, with the given duration of the working day or working year, expresses the mass of labor productivity. A rise in the number of employees is analyzed and planned using the labor resource balance. The distribution of social labor over the production spheres and sectors is basically carried out by establishing in the plans an indicator for the browth of the number of employees and regulating this for the enterprises using the wage fund. On the scale of a republic or the nation, the problem is complicated by the fact that the growth of the number of employees also occurs by the reduction in the number of kolkhoz members and persons engaged solely on the private auxiliary farm. Due to the last category, in statistics there is no accurate account of the population employed in production, since the number of persons employed on the private farms is calculated conditionally, proceeding from the volume of product. Prior to 1973, their proportional amount in the structure of the population employed in the Latvian economy was overstated in the statistics.

In 1975, this estimate was revised, and at present 1.9-2.0 percent of the total number of employees is considered to be employed on the private farms [43, p 322].

The number of employees in material production has increased by 12 percent over the 15 years, including by 45 percent in industry. At the same time, the number of persons engaged in agriculture has declined by 29 percent (Table 7).

The rise in social labor productivity in statistics is calculated only on a scale of the entire social production of a republic. For determining the corresponding indicators for the sectors, it is essential first of all to standardize the classification for accounting for net product and the number of employees. At present the calculation is carried out differently in labor statistics and in balance statistics. For this reason, our calculation of labor productivity in industry and agriculture is tentative. It does not include the kolkhoz members employed in industrial production. For agriculture the number of persons employed encompasses all categories of farms, including the conditionally determined number of persons engaged in private farming.

The indexes given in Table 7 show a rapid and steady growth for production efficiency in industry. The decline in the net product of agriculture has been influenced by the reduction in the product of the private farms and the growth of material expenditures, particularly in assessing them in comparable prices. Labor productivity on the kolkhozes and sovkhozes of the republic rose by 17 percent in 1971-1975 [43, p 26]. But as a whole, the net product per agricultural worker declined both in comparable and actual prices.

The labor productivity indicator calculated for net product is as incomparable for the various sectors as the indicator of gross product output.

Table 7

Dynamics of the Growth of the Number of Persons Employed in Material Production and Social Labor Productivity in Latvia[1]

Growth Indexes	1960	1965	1970	1975
For national economy as a whole:				
Growth of national income	100	141	204	271
Increase in number of employees	100	105	107	112
Rise in social labor productivity, in % of:				
1960	100	135	191	242
1965		100	141	180
1970			100	127
In industry:				
Growth of net product	100	160	256	367
Increase in number of employees	100	124	142	145
Rise of social labor productivity, in % of:				
1960	100	129	179	253
1965		100	139	196
1970			100	141
In agriculture:				
Growth of net product	100	102	102	73
Decline in number of workers	100	90	74	71
Rise in social labor productivity, in % of:				
1960	100	113	138	103
1965		100	120	91
1970			100	75

[1]Calculation of the author from the sources: [36, pp 42, 45, 49, 187, 189; 42, pp 57, 116; 43, pp 39, 101, 321-333].

Consequently, it is incompatible both in terms of the economic regions and the Union republics which have a different national economic structure. This, however, does not reduce the importance of the indicator of social labor productivity for analyzing the dynamics of production efficiency over time.

In 1961-1965, 83 percent of the increase in net product was obtained from a rise in social labor productivity, 94 percent in 1966-1970, and 87 percent in 1971-1975. The Basic Directions for the Development of the Soviet National Economy in 1976-1980 stipulate that 85-90 percent of the increase in national income will come from the designated factor. Hence a rise of only 3.8 percent is expected from an increase in the number of employees. In Latvia, with the limited internal labor resources, virtually the entire increase in net product should be obtained from the growth of labor productivity.

Social labor productivity, in turn, is determined by the factors of technical progress (the capital-to-labor ratio and the technical level of the productive capital, the educational level and skills of the labor force), by the sectorial structure of production and by natural factors, with technical progress, the assimilation of scientific achievements and the efficient use of production resources being of decisive significance.

The efficiency of social production is also characterized by the indicator of the return on investment, or the ratio of net product to the volume of fixed productive capital (in comparable prices). As a whole for Latvia, the return on investment prior to 1966 was declining, and then a stabilization was achieved, but since 1972 the tendency for a decline has again been observed. In 1966, this indicator was 88 percent of the 1960 level, 92 percent in 1970, and 83 percent of this level in 1975 [42, p 61; 36, p 70].

The average level of the return on investment for the national economy conceals great differences between the sectors. Thus, in construction this indicator exceeds the average by 2.8-fold, in industry by 1.5-fold, but in agriculture it is 0.6, and in transportation and communications, only 0.2 of the average level. Here in industry, in 1966-1975, the return on investment increased by 3 percent, in construction it remained on the 1965 level, and in agriculture it declined sharply.

In 1975, the republic produced 0.54 ruble of net product per ruble of fixed productive capital. In industry this indicator was 0.80, and in agriculture 0.32. Even greater differences are observed in the return on investment among the industrial sectors. For example, in light industry it is approximately 4-fold higher than in the chemical industry, and 50-fold higher than in electric power. However, these differences in no way mean that in light industry the fixed capital is utilized 50-fold more efficiently than in power engineering, or that in agriculture the efficiency of the productive capital is 2.5-fold lower than in industry. Such conclusions cannot be drawn not only because the indicators for the net product of the sectors do not correspond to the newly created value, for example, due to the turnover tax, the incomplete realization of the value of agricultural product in purchasing prices, or other deviations of prices from value. Such conclusions would be erroneous not due to the inaccuracy or lack of the statistical data, but rather are methodologically incorrect. The problem is that the return on investment in the various sectors is incomparable in the same manner that labor productivity is incomparable. The return on investment, as is known, is related to the capital-to-labor ratio and labor productivity as follows: $\frac{Y}{F} = \frac{Y}{L} : \frac{F}{L}$ (1), where Y--national income, L--number of employees, F--fixed productive capital. But productivity and the capital-to-labor ratio are traits of specific and not abstract labor. The varying capital-to-labor ratio is predetermined by specific objective features of the production process in the various sectors and by production methods which are characteristic for a certain level of

development for the productive forces. For example, in republic power engineering, the capital-to-labor ratio for one worker is 146,000 rubles, while in light industry it is 3,900 rubles. In agriculture, the capital-to-labor ratio per worker on the state farms and kolkhozes was 12,000 rubles, that is, it exceeded the average level of the capital-to-labor ratio in republic industry which equaled 9,900 rubles [43, pp 35, 92, 93, 101, 230].

As is known, the particular features of agricultural production require a higher capital-to-labor ratio in comparison with the manufacturing industry. In the Ninth Five-Year Plan, 131 billion rubles were invested in the nation's agriculture, that is, 26 percent of all capital investments. The Basic Directions for the Development of the Soviet National Economy in 1976-1980 provide a more rapid growth rate for caipital investments into agriculture. They will rise by 41 billion rubles, or by 32 percent, with an overall increase of 24-26 percent for the capital investments. This will further increase the capital-to-labor ratio in agriculture in comparison with the other sectors.

The one-shot expenditures of social labor which increase the capital-to-labor ratio are not an end in itself. They should being about a savings of current labor expenditures and increased labor productivity. If a rise in the overall return on investment is considered the criterion for the effectiveness of these expenditures, then the most effective would be capital investments into sectors with a higher social labor productivity and a lower capital-to-labor ratio. This corresponds to the above-indicated formula (1), in which labor and capital operate as abstract, qualitatively different amounts. In actuality, if labor productivity is "equalized" between the sectors in terms of an average level $Y_i/L_i = Y/L = \text{const.}$, as is assumed in calculating national income at the place of creation, proportionately to the number of persons employed, then the differences in the return on investment between the sectors would be inversely proportional to the capital-to-labor ratio, that is: $Y_1/F_1 : Y_2/F_2 = F_2/L_2 : F_1/L_1$.

If one assumes an equalizing of the capital-to-labor ratio in the various sectors in terms of an average level, that is, $F_i/L_i = F/L = \text{const.}$, then the differences in the return on investment would be directly proportional to the differences in labor productivity: $Y_1/F_1 : Y_2/F_2 = Y_1/L_1 : Y_2/L_2$.

The suppositions made are purely formal. In real reproduction for the various sectors with their inherent types of specific labor, there are their own characteristic ratios of physical and personal production factors, as well as a capital-to-labor ratio and labor productivity.

The on-going and even the intensifying structural differences do not make it possible to utilize the return on investment as a general indicator for the efficiency of a retional economy, as has been correctly emphasized by A. Probst [52, p 286] and other researchers.

The influence of structural shifts on the indicator of the return on investment can be assessed by calculating indexes with a fixed structure. But here it must be remembered that net product is not only a uniform mass of value, but also represents an aggregate of consumer values and is characterized by a definite changing structure. With a change in social demand and the means for satisfying it, the structure of net product should also change, and this, in turn, determines the necessary proportions of the sectorial distribution of productive capital and, correspondingly, the trend in the return on investment.

The return on investment cannot serve as a global criterion of efficiency inherent to socialism. The growth of the return on investment provides a savings of additional one-shot expenditures of social labor and makes it possible to increase the share of labor going to satisfy current demand. For this reason a rise in the return on investment in each individual element of social production has been and remains an exceptionally important task. But on the scale of all social production, an increase in net product can also be achieved in reducing the return on investment. If the increase achieved here in labor productivity covers the additional one-shot expenditures on the growth of the capital-to-labor ratio and at the same time provides the better satisfying of current demand, then such a development of production must be considered efficient. Efficiency, of course, would have been higher with a simultaneous rise in the return on investment. However this would have required a further rise in labor productivity.

Not the return on investment but rather social labor productivity is the decisive criterion for the efficiency of socialist production. The productive capital as well as land and the other natural resources operate only as the conditions for the application of labor, and can determine its relative efficiency in creating a specific product. But these physical factors are not involved in creating the value of net product. In our view, there is no objective justification for dividing the result of socialist production, that is, net product, into shares ascribable to labor and the productive capital. At the same time this is the idea of the indicators constructed by certain economists for aggregate efficiency of labor and productive capital, for example, the "man--capital--product" indicator of A. Kats [30] or the "overall coefficient of production efficiency" of Ya. B. Turchins [63]. Ya. B. Turchins provides the following theoretical justification for such an approach: "As the source of net product, productive capital is comeasurable and comparable with the labor force, and on this basis the two different production factors can be defined as qualitatively uniform and quantitatively comeasurable entities.... The reduction of the labor force (labor expenditures) and productive capital to a single expression or a single evaluation is possible only on the basis of their general capacity to create net product" [63, p 11].

The given reasoning can be understood only in accepting that the productive capital (means of labor) and the labor force are the production factors of specific goods or consumer values, for only in the process of

concrete labor are they "qualitatively uniform" as elements of the productive forces. But in this instance they must not be comeasured quantitatively. A quantitative comeasurement of these factors, like it or not, leads to their comeasuring with net product as a *value* amount, and to the quantitative expression of the productive capital and labor force as factors in the creation of *value*. In ascribing the capacity to create net product to the productive capital, Ya. B. Turchins does not consider the dual content of net product as the mass of consumer values and the newly created value. But under the conditions of commodity relationships, the creation of consumer values cannot be separated from the creation of value. Only labor is the source of value.

In many economic and statistical studies, there is a correlating of labor expenditures and productive capital using production functions. In working out economic forecasting models, extensive use is made of the Cobb-Douglas production function $Y = aL^{\alpha}F^{\beta}$ and its modifications which should show not only the quantitative growth of the employed production factors, but also the influence of qualitative changes related to scientific and technical progress. The α and β exponents are considered to be coefficients for the elasticity of national income in terms of labor and in terms of the fixed productive capital.

In the LAT-1 economic forecasting model worked out at the Economics Institute of the Latvian Academy of Sciences [16, p 85], a function $Y = 1.913\ L^{0.495}F^{0.505}e^{0.033\cdot(t-1960)}$ has been used. The addition of the additional term e^{λ} to the function does not alter its sense which is a comeasuring of the labor force and productive capital (capital) as qualitatively equal and interchangeable factors in the creation of national income. The difference of the modified function comes down to the fact that not the entire increase is ascribed to one or another combination of the two factors, but rather the part of it is explained by unidentified factors which in the given instance are termed "technical progress in the broad sense of this word." In the more detailed LAT-2 model [16, p 90], this function expresses the dependence of the increase rate of national income T_Y, the increase rate of the number of employees in material production T_L, and the increase in fixed productive capital T_F by the following equation: $T_Y = 0.495T_L + 0.505T_F + 2.930$. Here the coefficient $\alpha=0.495$ is nothing more than the share of wages in the value of the net product as determined from the intersectorial republic balance, while the coefficient $\beta=1-\alpha$--the share of product for society. In the same manner the α and β coefficients are determined in the production functions for the individual national economic sectors in the LAT-3 model. But the designated parameters are interpreted as "the corresponding contribution of labor and capital to the increase in the physical volume of national income. Thus, a 1 percent rise in the number of employees and fixed productive capital leads to an increase in national income in industry, respectively, by 0.32 and 0.68 percent, in construction by 0.78 and 0.22 percent, and so forth" [16, pp 105-106].

It turns out that the increase in the wage fund is a factor for the increase of necessary product, and the growth of productive capital is the cause for an increase in surplus product. This interpretation is methodologically unsound. An increase in the number of employees is actually related to an increase in the amount of necessary product, but it must be assessed in a complete form, including also the corresponding portion of the public consumption funds. But if the first component of the formula is expressed as $T_L \frac{v}{v+m}$, then the second, under the condition that $\beta = 1-\alpha$, equals $T_F \frac{m}{v+m}$. Since the ratio $\frac{\beta}{\alpha}$ virtually equals $\frac{m}{v}$, that is, the rate of surplus product, then the surplus product, like the necessary, should increase proportionately to the mass of labor. The second component of the formula for the rates should be $T_L \frac{m}{v+m}$. Then $T_Y = T_L \frac{v}{v+m} + T_L \frac{m}{v+m} + \lambda = T_L + \lambda$. In this instance, the entire increase in national income would be broken down into portions corresponding to the growth of the number of employees and labor productivity. The λ parameter comes down to the latter, and this is determined on the basis of the dynamic series using regression analysis and the least-square method. According to the described model, the λ parameter (technical progress) is responsible for 46 percent of the increase, and capital and labor provide 27 percent.

Incidentally, the parameters of the production function in the model in assessing them by other methods show different ratios for the share of labor and capital in the increase of national income. According to the method of V. S. Dadayan, respectively, the figures are 0.22 and 0.78 percent, and according to the coefficients for the efficiency of labor and capital accepted by Ya. B. Turchins, 0.76 and 0.24 percent. Nevertheless the calculations for the model with different coefficients provide almost the same results: the average annual growth rates differ only by 0.1-0.2 percent [16, pp 84-86]. V. M. Rutgayzer gives 42 pairs of the production function parameters calculated on the basis of data for the 15 republics over 7 years in different prices [56, p 50]. But if the elasticity coefficients fluctuate in such broad limits and the result is virtually the same, this means they cannot describe the contribution of the various factors to the creation of net product.

The actual sense of the interchangeability of the labor force and productive capital consists in the objective relation of the capital-to-labor ratio and labor productivity. Obviously it would be possible to work out a production function, having taken as the second factor not the productive capital but rather the required electric power, and such a function would also provide sufficiently reliable results, since labor productivity is as closely tied to the electricity-to-labor ratio. However this does not mean that electric power could be ascribed the capacity of creating net product.

The ratio of the production factors, their interchangeability and the growth patterns merit profound analysis, in particular, using the production

One must not deny the practical applicability of this method in national economic forecasting. It is essential to develop and improve the statistical information on all the production factors, and not merely on the productive capital, and to study the influence of the changes in the sectorial structure on these factors. But since live labor is the direct source of net product, the entire aggregate of the remaining factors comes down to the factor of social labor productivity.

The primary importance of labor productivity consists in the fact that the workers not only produce but also appropriate the net product, and the amounts of social appropriation are directly determined by production efficiency. Analysis of the absolute amount of the net product per employee (in actual prices) and its increase can be used to disclose the growth rates of necessary and surplus product.

In 1975 the net product per employee in the industry of the republic was 6,200 rubles, in construction the figure was 4,200, in agriculture 3,500, and in transportation and communications 2,200 rubles. The calculation and analysis of this amount in terms of the social and sectorial structure as well as in the regional aspect are the starting points for the planned control over the process of national income distribution.

2. The Formation of End Income in the Process of the Distribution and Redistribution of National Income

The primary distribution of the value of net product created in the production process is carried out at the socialist enterprises in the production and distribution sphere. The money advanced by the enterprises to purchase the means of production and to pay for production services is returned to the enterprises in the form of receipts from the sale of goods or services. The receipts also contain the realized value of net product, or the gross income of the enterprise. This is the difference $D^1 - D$ which is disclosed in the process of the circulation of the production assets, cash and disposable stocks.

The gross income of the entire aggregate of enterprises comprises national income. Its distribution into the personal income of the employees and net income is the primary distribution of national income or the first level of forming the income which ultimately should correspond to the value of necessary and surplus product. But the portion of gross product which is distributed to the workers according to their labor in the movement of the assets of a self-financing enterprise operates as advanced value, and merges with the advanced productive capital. Wages from the viewpoint of the enterprise are not income, but rather are considered as production outlays. Economic accountability presupposes costs and net income as the separate parts of value and not the material expenditures and net product. Since wages externally look like the advancing of money D, then the difference $D^1 - D$ operates as net income.

Since the product is appropriated directly by society and not by each enterprise, the wages of each employee should depend upon his personal contribution to the aggregate of the labor of society and upon the aggregate wage fund, and not upon the gross income of the enterprise. The enterprise wage fund is approved centrally, proceeding from the planned labor expenditures and the payment standards (wage rates, salaries, standard staffs, and so forth), regardless of the gross income of the enterprise. For this reason at the state enterprises the gross income indicator is not employed at all. In practical terms it is calculated only on the kolkhozes, and this is considered to be a particular feature of economic accountability caused by the cooperative form of ownership. Under the conditions of kolkhoz ownership, when the level of socialization is lower, the wage fund is directly a function of the gross income of the kolkhoz, since here there is not the social but rather the group appropriation of the product which is closer to personal appropriation. In introducing the system of a guaranteed wage on the kolkhozes and with the bringing of this system closer to the wage forms at the state enterprises, the designated dependence has been reduced, and this has been caused by the growth of the socialization of kolkhoz property. However, the economic separateness of the kolkhozes in the appropriation of gross income survives, and this provides a direct material incentive to increase it.

The employees of state enterprises should also have a material incentive not only in the net product of all society, but also directly in the creation of it at their own enterprise. For this reason the level of individual wages should be made definitely dependent upon the efficiency of the collective results of production at an individual enterprise as expressed in gross income. In the economic incentive system introduced after the September (1965) Plenum of the CPSU Central Committee, such a dependence is provided for by adding bonuses from the material incentive fund (MIF) to the rate portion of wages. The net income (profit) is the direct source of the bonuses from the MIF and the other bonuses which are not part of the wage fund. At the same time the net income is used as an indicator for the operating results of the enterprise. Here profit remains primary income, and the bonuses are a form of secondary distribution derived from profit. However, since the gross income of the enterprise itself acts as the source of the designated bonuses, this portion of wages can be defined by the separate term "additional distribution."

Additional distribution through the economic incentive funds provides a more flexible mechanism for adjusting the proportions of personal and social appropriation considering the productivity of social labor and the growing amount of necessary product. The growth of social labor productivity is manifested in an increase of enterprise net product (gross income). But with a fixed amount of the wage fund, the growth of gross income acts directly as the growth of net income. The portion of the increased necessary product is realized in net income. This also is the basis for the additional distribution which puts individual wages in an additional dependence upon production efficiency at the specific enterprise.

With the system of guaranteed wages on the kolkhozes, additional distribution is also carried out through the material incentive funds. Within the economic incentive system, a certain integration can be observed in the distribution forms on the kolkhozes and at the state enterprises. Net income is receiving growing importance as part of the gross income of the kolkhozes. And at the state enterprises, gross income should also play a definite role in the economic incentive mechanism. This, of course, does not mean the separate appropriation of gross income by the state enterprises and does not replace the principle of distribution according to labor. Economic incentives by additional distribution of the gross income is also carried out with its social appropriation.

The various forms of the net income of society also embody a portion of the necessary product which is not subject to direct distribution according to labor but rather is distributed through the public consumption funds.

The social security withholdings are above all such a form of net income, and these are made by all enterprises in an amount of a percentage of the wage fund which is legally established for each sector. The designated withholdings, like wages, for the enterprises are production outlays and are included in product costs. The social security funds are earmarked for the paying of aid for temporary disability, for pregnancy and births, for pension support, for sanitorium, resort and preventive medical services, for the support of children in Pioneer camps, as well as for satisfying social and domestic needs of the workers which are similar to those listed. In terms of their purpose, the designated expenditures serve the reproduction of the labor force. In the sphere of material production, the social security withholdings are a form of the primary distribution of the value of necessary product and not of surplus product.

The public consumption funds, as is known, are not covered only by the social security withholdings. The turnover tax and profit which contain a portion of the value of necessary product are also used as their sources.

Before moving on to an analysis of the specific amounts of the turnover tax and profit, we must take up the particular features of their calculation and the delimitation of primary and derived income in them.

The turnover tax, as a form of the centralized net income of the state, is isolated in the very stage of primary distribution. However, in national income statistics, in calculating the produced turnover tax, excluded from it are the payments of the difference between the purchasing and calculated prices of agricultural products, the rebates on textiles sold to the garment industry, and similar payments from the state budget, while the surcharges on the prices for radios introduced in the place of a subscription fee are added. The profit of the corresponding sectors provided by these payments is included in the primary income. In order that the total profit and turnover not exceed the actual net income, the payment of the price difference must be excluded from the realized turnover tax.

Certain other state income must be equated to the turnover tax. For example, income from foreign trade operations is ultimately realized in the prices for imported goods, while the exported goods are delivered to the foreign trade organizations at wholesale prices without a turnover tax. The total income from the foreign trade operations which is centrally included in national income of the Union republics in fact is not used in the republic, but is a direct contribution of the republic to the general Union resources, as is the turnover tax going to the Union budget.

The stump tax forming the forest income of the state is a specific form of net income. It can be considered the receipt for the salable forestry products. But if forestry (the growing of the forest) were on economic accountability, then the profit of this sector would be formed from the stump tax minus costs. But forestry is a specific sector with an extended production period in which the current outlays are basically related to the product of future periods. In the USSR, the forestry expenditures are financed by the state, and the stump tax goes to the state budget. In the lumbering enterprises, this payment is included in product costs and is equated with material expenditures. Thus, both in essence and in the form of formation, forest income is not redistribution but rather the primary income of the republic state budget which, however, includes the value of the necessary product created by the forestry workers.

Profit is the largest portion of net income in terms of the amount and importance in the economic mechanism. However, in examining the primary distribution of income, it is essential to exclude from total profit the profit from paid services of a nonproduction nature. In the sectors where the same enterprises are engaged both in production activities and the rendering of services, the results of their activities merge and the separate calculating of profit is not always possible. For example, transport, communications and consumer services for the public are such sectors. In our calculation, the profit from the designated sectors is divided between primary and derivative net income on a conditional basis, proportional to the number of employees or the value of the rendered services.

The current method for calculating the expenditures and results of economic operations serves to disclose the costs and profit of the self-financing enterprises, but does not provide for the defining of the net income of society. Individual elements of product value which are transferred from the enterprises to the superior organizations or banks or are confiscated by the state budget in essence are the net income of society, but are included in costs and are not reflected in the profit. For example, these would include deductions for specific funds and for the support of the economic management bodies. In such sectors as agriculture and trade, as before the interest on bank credit is included in costs. For example, the state budget receives the planned savings from a curtailment of administrative and management expenditures and various other nontax payments. At present there is no complete accounting for these concealed forms of net income. However, they are insignificant in amount in comparison with the basic accounted-for forms of net income.

Now let us examine primary distribution and additional distribution of net income in Latvia in 1975. The national income totaling 4,752,000,000 rubles consisted of 4,350,000,000 rubles of net product from social production, and 402 million rubles from the private farms. Primary wages in the sphere of material production, including the wages of kolkhoz members, were, in our estimate, 1,547,000,000 rubles, and along with the bonuses paid from the material incentive funds and other bonuses outside the wage fund, were 1,694,000,000 rubles. In addition, the primary distribution of worker wages should also include certain work-related payments, for example the "per diems" for persons on official trips, the wage surpayments related to the traveling nature of a job, and so forth. They were approximately 26 million rubles. The remaining portion of the net product from social production is the net income of society. This equaled 2,777,000,000 rubles, and after additional distribution, 2,630,000,000 rubles. Some 87 million rubles would be considered as primary income from the state social security withholdings. In addition, social security and deductions by the kolkhoz workers into the centralized social security fund were 23 million rubles.

The turnover tax produced in the republic, minus the balance of the relationships with the budget, was 775.5 million rubles. Of this amount, 208 million rubles remained in the income of the republic budget minus the payment of the difference in prices. It can be considered that the remaining amount of 567.5 million rubles in the primary distribution went to the general Union resources. The general Union resources would also include the income from foreign trade operations amounting to 250.5 million rubles, while a forest income of 4 million rubles must be considered as the primary income of the republic budget.

The net income of the enterprises in the sphere of material production included a profit of 1,411,000,000 rubles for the state enterprises and consumer cooperatives, 103 million rubles of kolkhoz profit, and 123 million rubles of other forms of net income.

Thus, the primary income of the republic's workers was 1,975,000,000 rubles and considering the additional distribution, 2,122,000,000. Out of the net income totaling 2,777,000,000 rubles, 818 million went to the general Union resources, 212 million to the republic budget, 110 million to the social security budgets and the kolkhoz pension fund, and 1,637,000,000 rubles remained at the enterprises.

The ratio of the net income to the primary income of the population (considering the additional distribution) was 124 percent. The designated ratio calculated in the stage of the primary distribution of national income is sometimes mistakenly called the surplus product rate, in referring to the inaccurate use of the terms of necessary and surplus product in the intersectorial balances. According to the data of the Latvian intersectorial balance for 1966, this ratio equaled 108 percent, and for 1972, 111 percent [42, p 62]. In social production, not counting the income

from the private farms, the ratio of net income to full wages was 152 percent, and for net income of the enterprises (without the turnover tax), 92 percent. Table 8 shows this ratio in the various sectors of the republic economy.

The difference in the percentage of net income of the enterprises between the sectors shows, in the first place, that there is not a uniform net income rate for all the sectors; secondly, the sectorial rates do not have a definite dependence upon the wage level or upon the relative labor productivity; thirdly, additional distribution through illnesses does not smooth out but in certain instances even intensifies the differences between the sectors.

Over the designated period there was a significant increase in the share of additional distribution. The ratio of total net income to wages rose up to 176 percent from the 155 percent in 1965, however, considering additional distribution in the form of bonuses, it remained on the same level, 152 percent. Bonuses averaged for all the sectors 9.3 percent of the primary wages and 8.6 percent of the net income. At the same time, the influence of bonuses paid from the MIF on the growth of average wages must not be overestimated.

Indicative is the change in the primary distribution and additional distribution in industry, where the changeover to the new system of economic incentives was carried out first. Let us examine the gross income of the enterprises of state and cooperative industry (minus the turnover tax). In comparison with 1965, it rose by 831 million rubles, or by 91 percent, including by 355 million rubles for the total of the wage fund and bonuses, while the net income of the enterprises minus the total bonuses rose by 473 million rubles. The increase of 16.8 percent in gross income and, respectively, the wage fund was caused by an increase in the number of industrial and production personnel. The increase in the wage fund due to the additional number of personnel, with the 1965 wage level and other conditions being equal, would have been 69.4 million rubles. The total bonuses not included in the wage fund rose by 73.3 million rubles, including by 66.6 million rubles from the material incentive funds. Thus, 212 million rubles, or 60 percent in the increase in wages, is explainable by a rise in wages in primary distribution.

The number of personnel increased basically in 1966-1970 (by 14.6 percent), but in the Ninth Five-Year Plan, the number of industrial-production personnel rose only by 1.9 percent. In 1970, 54.4 million rubles in bonuses were paid above the 1965 figure, and in 1975, another 19.4 million rubles. The total wages for 1971-1975 rose by 128 million rubles, including by 97 million rubles for the increase in the primary average wage. This was 76 percent of the increase. Over the 10 years, primary wages per worker per year increased by 526 rubles, and the average bonus by 177 rubles. Thus, bonuses were 25 percent of the increase in average earnings, including 32 percent in 1966-1970 and 16 percent in 1971-1975.

Table 8

Ratio of Net Income and Wages in Social Production for Basic Sectors of Latvian Economy in 1975

Отрасль Sector	a Сумма в руб. на одного работающего				b Отношение чистого дохода к оплате труда, %		c Отношение отраслевого уровня к среднему уровню в республике			
	d чистой продукции	e оплаты труда: f первичной	e оплаты труда: g премий	h чистого дохода за вычетом премий	i по первичному распределению [4+5] : 3	j после дораспределения 5:[3+4]	d чистой продукции	e оплаты труда: f первичной	e оплаты труда: g включая премии	h чистого дохода за вычетом премий
1	2	3	4	5	6	7	8	9	10	11
k) Промышленность	4301	1722	200	2362	149	123	1,25	1,06	1,09	1,45
l) Строительство	4271	2053	171	2006	106	90	1,25	1,27	1,25	1,23
m) Сельское хозяйство:										
n) совхозы и др. гос. хозяйства	2088	1402	129	551	48	36	0,61	0,87	0,87	0,34
o) колхозы*	2174	1425	26	723	53	50	0,63	0,88	0,82	0,44
p) Грузовой транспорт**	3129	1895	201	883	57	42	0,91	1,17	1,18	0,54
q) Связь	2476	1233	150	1069	99	77	0,72	0,76	0,78	0,65
r) Сфера обращения	3353	1194	156	1984	179	147	0,98	0,74	0,77	1,21
s) Итого по республике***	3433	1620	152	1634	110	92	1,00	1,00	1,00	1,00
t) Всего, включая налог с оборота	4498	—	—	2699	176	152				

Notes. *The data do not cover the fishing kolkhozes and the kolkhozes which during the year were annexed to the state farm; **Including the road system; ***The wage total includes wages in the organizations of the production sphere financed from the state budget. The net income total is correspondingly reduced in comparison with primary distribution.

Key: a--Total in rubles per worker; b--Ratio of net income to wages, %; c--Ratio of sectorial level to average level in republic; d--Net product; e--Wages; f--Primary; g--Bonuses; h--Net income minus bonuses; i--For primary distribution [4+5]:3; j--After additional redistribution 5:[3+4]; k--Industry; l--Construction; m--Agriculture; n--Sovkhozes and other state farms; o--Kolkhozes; p--Freight transport; q--Communications; r--Distribution sphere; s--Result for republic; t--Total, including turnover tax.

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The bonuses from the MIF to a varying degree influenced the average earnings of the various employee categories. Since the bonuses, as a rule, for workers are not paid from the MIF, but rather within the wage fund, the additional distribution has a greater impact on the average earnings of the engineering and technical personnel [ITR] and white collar personnel. In the total increase of wages in industry of 355 million rubles, the share of the workers was 284 million, 56 million for the ITR, and 11 million rubles for the white collar personnel. The wage fund of the workers increased by 14 percent due to the increase in the number of workers, and 86 percent due to average wages; the percentage ratio of these factors for the ITR was, respectively, 45 and 55 percent, and for white collar personnel, 14 and 86 percent. The amount and composition of average wages for the designated employee categories are shown in Table 9.

Table 9

Average Monthly Wages and Their Composition in Latvian Industry, in rubles

Year	Components of Average Wages	Personnel Categories		
		Workers	ITR	White Collar Personnel
1965	Primary wages from wage fund	96.6	138.6	82.6
	Bonuses outside of wage fund	1.2	6.9	3.0
	Total	97.8	145.5	85.6
1975	Primary wages from wage fund	147.9	137.5	96.1
	Bonuses outside of wage fund	10.4	52.0	33.7
	Total	158.3	189.5	129.8

Average earnings of the workers over the 10 years increased by 62 percent, including by 52 percent from the wage fund and only 9 percent from the bonuses from net income, and these were 15 percent of the increase in the wages of workers, 69 percent for white collar personnel, and the entire increase in the wages of the ITR. In 1975, the average amount of bonuses for the ITR reached 37.8 percent of basic wages (salaries). Regardless of this, the ratio of ITR wages to the average wages of workers declined from 1.49 in 1965 to 1.20 in 1975, and the primary wages (according to salaries) for the ITR are lower than the average for the workers.

A tendency for the equalizing of wages is also observed in other sectors. For example, in construction the ratio for the wages of the ITR and workers in 1975 was just 1.02. This has led to a situation where in many

instances the bonuses from the MIF are used simply as a supplement to the salary helping to maintain the required wage differentiation for the ITR and workers. The designated phenomenon is caused by the fact that the established wage rates and salaries are obsolete and have lagged behind the increased level of necessary product. Under these conditions the enterprises are forced to delay a revision of the obsolete output rates and increase the share of bonuses both from the wage fund (for the workers) and from the MIF. The rate portion of wages has declined. Both among the enterprises and among the different regions of the nation, unjustified wage differences have arisen and these intensify personnel turnover and cause other undesirable phenomena.

The revision conducted in the Ninth Five-Year Plan in the rate and staff-salary wage systems as well as the measures to improve regional wage regulation have been of important socioeconomic significance. As a result of these measures, the rate portion of the wages has increased, and labor norming has improved. Conditions have been created for increasing the incentive role of bonuses.

It is essential to point out that at a majority of the industrial enterprises in the republic, the new wage rates and salaries were introduced only at the end of 1975, and in the indicators being examined by us, the impact of these measures has almost not been felt.

Gross income (minus the turnover tax) per employee in industry over the 10-year period rose by 64 percent; wages rose by 58 percent, including by 15 percent due to additional distribution; net income considering additional distribution increased by 70 percent. The ratio of net income to full wages in 1966-1970 rose from 114 to 132 percent. This undoubtedly shows the positive influence of the economic incentive system the introduction of which was basically complete prior to 1970. However, in 1971-1975, the growth of wages (17 percent) outstripped the growth of gross income per employee (13 percent). As a result, for the designated years the ratio of net income to wages declined to 123 percent. Here wages basically rose due to primary distribution, and only 3 percent of the increase was caused by additional distribution. The enterprises had an opportunity to increase wages not only through the MIF, but also in primary distribution as the mechanism for planning the wage fund and correcting the plans did not provide for the more rapid growth of net income.

The net agricultural product of the kolkhozes as calculated by the TsSU in 1975 was 257 million rubles (including the product of the interkolkhoz associations and the fishing kolkhozes). The interkolkhoz associations represent a new type of farm and in terms of the level of socialization are close to state enterprises. The expenditures and the results of the economic operations of the former, in our view, must not be equated to the expenditures and results of the kolkhozes. Although construction and ancillary industrial production of the kolkhozes is shown in the statistics in the corresponding sectors, the activities of these subdivisions basically

serve agricultural production, they are organically linked to it, and do not serve as an independent source of income. For an analysis of distribution, let us examine the results of all the sectors of the activities of 392 agricultural kolkhozes in operation at the end of 1975.

Out of the gross income of the kolkhozes totaling 323 million rubles, wages for the kolkhoz members were 189 million rubles (not including bonuses and wages to the employees of cultural and service institutions from the special kolkhoz funds), and wages for hired or temporarily employed workers were 22 million rubles. Out of the net income, bonuses of 4 million rubles were paid through the MIF. Net income after additional redistribution was 107 million rubles.

On the sovkhozes and other state farms, gross income from agriculture was assessed at 176 million rubles, including 118 million rubles in primary wages, 11 million of additional distribution through the MIF, and 47 million rubles of net income after additional distribution.

In agriculture one can observe the more rapid growth of wages in comparison with net income. This is related to the solving of the important socio-economic task of overcoming the essential differences in the income level of the rural workers, particularly kolkhoz members, and urban employees. The most rapid growth of average wages occurred in 1966-1970: the increase was 58 percent on the sovkhozes and 68 percent on the kolkhozes. Net income over this period increased even more rapidly, respectively, by 88 and 75 percent. In 1971-1975, wages rose more slowly, but their growth exceeded the growth of gross income, and the ratio of net income to wages declined on the sovkhozes from 75 to 36 percent, and on the kolkhozes from 59 to 50 percent. As a whole over the 10 years, the income of the kolkhoz members from the socialized farm rose by 2.2-fold, and almost equaled the wages on the sovkhozes, and considering the income from the private farms now exceeds the income level of workers and white collar personnel.

The fundamental changes in wages created conditions for the normal reproduction of the labor force of kolkhoz members and for increasing their material interest in social production. At the same time the operating losses of the kolkhozes and sovkhozes were eliminated, and the necessary profitability for full economic accountability was ensured. But it is essential to consider that the carrying out of the designated tasks required a significant rise in the state purchasing prices for agricultural products. For the purchases of livestock and milk, the difference between the purchasing and the lower calculated prices of the dairy industry is covered from the net income of society out of the state budget. For Latvia, in 1975, this was 356 million rubles, that is, more than all the net income of the kolkhozes and sovkhozes. Under present-day conditions in agriculture, along with a further rise in wages, the task of increasing the percentage of net income should also be proposed. In terms of the kolkhozes, since their wage fund is not planned centrally, prices are the basic means for regulating the ratio of net income to wages. On the sovkhozes, both the wage fund and profits are centrally planned. Moreover, a portion

of the profit is redistributed between the sovkhozes. But as a whole the net income of the enterprises is not sufficient for financing major capital investments into agriculture. A portion of the centralized capital investments on the sovkhozes as well as the expenditures on land reclamation and the fundamental improving of the lands are covered out of the state budget. These major investments should provide a return in the form of a significant growth of net income.

In the remaining sectors, the ratio of net income to wages has increased. The growth of this ratio in construction, transportation and the distribution sectors has covered its decline in agriculture. But the average percentage of net income for all social production has not risen. Hence, wages have increased at the same pace as social labor productivity. This would correspond to a fixed rate of surplus product under two conditions: in the first place, if wages were all necessary product or a certain, fixed share of it; secondly, if the sectorial structure remained fixed, that is, with the same growth rates for the production of the means of production and consumer goods. In actuality, the public consumption funds comprise a growing portion of necessary product, and for this reason social labor productivity should outstrip the growth of wages. In addition, the law of the predominant growth of the production of the means of production continues to operate, although the rise in efficiency is a factor offsetting this objective trend. However the savings of labor in the first subdivision cannot immediately be embodied in additional product from the second. As a rule, such a change in the production structure requires a more extended time. The increase in wages for such a period should lag behind the increase in labor productivity.

Both designated circumstances (the increase in the share of the public consumption funds and the temporary "lag" between the rise in production efficiency and its realization in an additional volume of the consumption fund) are the reason that with the even growth of wages and net income of society, disruptions may arise in the proportionality of national income and net product. These particular disproportions can be overcome with sufficient material reserves. But a more rapid growth of net income is also required for creating such reserves.

The balance of net income and wages is subject to active planned control considering all the factors which determine the amount of necessary product on a scale of the entire society. The necessary product of society is limited by the production scale of the means of life. Its growth depends not upon the amount of net product in monetary terms, but rather upon its physical structure. The material embodiment of net product determines the acceptable limits within which the distribution of its value does not disrupt the balancing of net product and national income. Since the ratio of the value of surplus and necessary product exists objectively, the proportions for the distribution of the gross income of the enterprises into wages and net income should be determined just as objectively. Here it is essential to consider that the distribution of the value of necessary

product is not restricted to primary distribution. Not the primary but rather the final distribution of income formed in the process of redistribution should correspond to the rate of necessary and surplus product.

Let us examine initially the change in the income of the population in the redistribution process using the example of 1975.

Wages in the nonproduction sphere are the basic form of the derived income of the population. The workers in the institutions of education and culture, public health, children's institutions, consumer service enterprises, the housing and utility system, passenger transport and communications, and so forth received 380 million rubles in the form of wages, bonuses and other income. Some 60 million rubles were paid in the scientific sphere, and 57 million rubles in the administrative bodies and the sphere of finances and credit. In addition, the derived income includes the wages in forestry and in certain institutions which serve agriculture; these were 19 million rubles. As a total this income for the workers was 517 million rubles.

A significant portion of the derived income of the population is made up of money payments from the public consumption funds in the form of pensions, aid and scholarships. These are formed through the following basic channels: From the state budget of the republic and from the Union budget, from the state social security budget, the centralized social security and social welfare funds of the kolkhoz members, and from the funds of the state enterprises and kolkhozes.

The temporarily free money of the public is used in the credit resources. In this regard derived income is also produced in the form of interest on deposits in savings banks, insurance claims, and winnings in the state loans and lotteries. For each channel of redistribution and for the derived income of the population as a whole it would be possible to calculate definite coefficients which characterize the ratio of the derived income to the primary income.

Redistribution is also carried out in the reverse direction, that is, from the income of the population into the centralized net income of the state, into the service sphere and into the credit system. The state taxes, voluntary payments and deposits and payment for services comprise the basic forms of this redistribution. Under socialism an essential feature of the state budget is that the taxes and other payments of the population are significantly less than the payments to the population from the budget. In the USSR, a program is gradually being carried out for the complete elimination of taxes on the population, however as a consequence of the rapid growth of wages, tax receipts are increasing.

From the total taxes and fees from the population, the republic budget received 119 million rubles, and the Union budget 96 million rubles. In addition, the population purchased a total of 12 million rubles in notes

of the state 3-percent lottery loan and tickets for various money and article lotteries. The insurance premiums received from the population equaled 55 million rubles and significantly exceeded the insurance claims. These were basically premiums on mixed life insurance and this is a particular form of the monetary savings of the population. The increase in savings bank deposits must also be considered as redistribution, and this increase was 116 million rubles. Like the investments in the state loans and the insurance premiums, the deposits may be considered a credit form of redistribution. Although these savings remain the property of the population, they go into the credit resources of the Gosbank and in the form of a bank credit are channeled into the national economy.

An important redistribution channel is the payment for services of a nonproduction nature and apartment rent. The payment for services comprises less than 8 percent of the aggregate income of the population. The actual share of services in the consumption of the population is much higher, since the money of the state budget, the social security budget, and the resources of the enterprises and public organizations are also redistributed into the service sphere. In addition to free education and medical services, the public pays only a small portion of a number of services including the services of nurseries, Pioneer camps, the housing and utility system, sports organizations, various clubs, circles, sanitorium and resort services, and so forth.

The service sphere under present-day conditions is becoming ever more developed and diversified. The payment for services is a necessary element in the national income balance. For studying the role of services in the balancing of monetary income and net product, a further detailed elaboration if required for this element of the balance, as as yet it has not been properly reflected in the national income statistics of the Union republics.

The ratio of the redistribution payments to the aggregate income of the population also comprises a definite coefficient. The use of the redistribution coefficients linking primary income to end income would make it possible to solve the problem of coordinating the second and third quadrants of the value intersectorial balance, and would help to raise the scientific soundness of the planning calculations.

The process of distribution and redistribution as a whole could be represented in the form of interrelated flows according to the above-examined sample system (see Fig. 1) or in the form of accounts.

The formation of the end income of the production enterprises starts from the primary distribution of net income. From it the following are subtracted: Additional distribution (bonuses); deductions for sociocultural measures, housing construction and the covering of the losses of the housing and utility system; deductions for the running of the economic administrative bodies, for the development of science and technology, and into other special funds. In the redistribution profit, allocations from

the state budget, the increase in the balance of bank loans and other financial receipts are added to profits.

The enterprises and institutions in the nonproduction sphere receive all income through redistribution, and all the payments to the employees as well as other nonmaterial expenditures and payments are further redistribution. Since the rendered services are not directly reflected in the consumption fund of national income, the material expenditures of each sector of service, science and administration operate as end consumption. They, like the money channeled into capital investments and the major overhaul of nonproductive fixed capital, remain on the account of the corresponding sector as end income.

The account of the relationships with the general Union resources reflects in a full form the receipt of resources which are centralizable on a national scale, as well as their use on the territory of the republic. For example, the various payments to the public from the Union budget exceed the taxes transferred to this budget by 250 million rubles. The balance of receipts from the Union budget to the republic budget under clearing operations was 86 million rubles. The republic social security budget received 26 million rubles from the AUCCTU to cover expenses. The profit deductions from the Union-level enterprises received by the Union budget exceeded the financing of capital investments from this budget. The end income of the account of the general Union resources in the republic corresponds to the real accumulation of state reserves and the balance of net exports of the goods (the balance of national income redistribution).

The end income formed as a result of the distribution and redistribution processes (minus losses in the national economy) should correspond to the material resources of the consumable and accumulable net product. The end income of the population, the scientific and administrative institutions is basically realized in the consumption fund, and the end income of the enterprises in the accumulation fund. The ratio of the net income of society to the total end income of the population and material expenditures of the service sphere is an amount close to the actual rate of surplus product.

3. Problems of Coordinating the Consumption Fund and the Real Income of the Population with Net Product

The consumption fund is the physical basis for satisfying all the nonproduction needs of society, and above all the basis of the real income of the population. The proportional amount of the consumption fund in the net product of a republic and its structure are shown in §2 of Chapter 1.

The balancing of net product and the monetary form of national income to a significant degree is determined by the balancing of the end income of the population and the consumption fund of the population. If these two aspects are in equilibrium then the end net income of society and the accumulation fund are also balanced.

If the growth of the end monetary income of the population outstrips the increase in the physical volume of necessary product as the mass of the means of life, and a portion of the monetary income cannot be embodied in consumer goods, then this portion of the income cannot be considered as real income. Such a ratio causes an exceeding of demand over supply, or a commodity scarcity. Since the price mechanism under socialism does not permit a spontaneous fluctuating in prices depending upon supply and demand and the price level for consumer goods is kept relatively stable, the indicator of the real income formally can rise with a partial imbalance in net product and monetary income.

A certain discrepancy can arise between the monetary income of the population and its realization in net product, since the distribution of value and the realization of money income do not coincide in time, and a portion of the income is constantly among the population in a money form, while a portion of the consumer goods can be provided to the population on the basis of credit. With the full satisfaction of the demand for goods, these deviations, in canceling each other out, do not cause a substantial difference in the money and real income of the population. However, in practical terms the money savings of the population comprise a significant amount. For Latvia, the increase in the deposits of the public in savings banks and the purchasing of the notes of the 3-percent state loan are 3-4 percent of income. This amount is growing annually. In addition, as a rule, there are also cash savings of the population.

In the statistical and planning methods, in calculating the real income of the population, the monetary savings are excluded from end income in order that the indicator of real income actually reflects the consumption fund of the population as a part of national income. However, such a ratio of monetary and real income cannot be considered permanent and acceptable. This is an element of imbalance, and measures must be taken to eliminate it through the planning procedures. An imbalance of growth can cause such a negative phenomenon as a weakening of the incentive role of distribution according to labor. Surplus money savings of the population mean unsatisfied demand, and are the grounds for speculating in goods, private ownership trends and profits for a certain category of persons at the expense of the workers. In order to prevent these phenomena which are alien to the socialist way of life, it is essential not only to strengthen the work in the area of indoctrinating communist morality, but also provide a fully balanced growth of the economy whereby the dependence of personal well being and the development of the personality of each member of society upon the results of social production is fully manifested.

The monetary and real income cannot be balanced in controlling only wages in the production sphere, without considering redistribution. The ratio required in each given period between the growth of labor productivity and wages should be determined considering the direction of the redistribution flows and their intensity. Social labor productivity is objectively linked to the end income of the population and not to the primary income.

Here the problem of balancing cannot be solved in isolation, within the framework of an individual Union republic, but must be solved on a nationwide scale, since the differences in the degree of satisfying the demand of the population are smoothed out by the migration of money.

The migration of money between the republics comprises a separate problem which is specific to the Union republics and which further complicates the task of the balanced growth of the monetary and real income of the population. According to the current procedure the personal consumption fund of the population reflects the entire total of purchases on the territory of the republic, with the exception of purchases in second-hand stores and the acquiring of the means of production for a private farm. Hence, the consumption fund also includes the purchases of visitors and purchases made by postal money orders and letters of credit, but it does not include the consumption of the republic's population outside it. Thus, the personal consumption fund does not correspond to the income received in the distribution of produced national income. The national income of a republic does not include any of the income which occurs outside of it. This discrepancy which does not exist on a national scale is essential for individual republics, particularly the small ones with an intensive flow of visitors. In Latvia, where a number of nationally important resorts is located, the purchases of resort visitors and tourists make up a large amount. In addition, as has been shown by research conducted by specialists on trade conditions and demand, the residents of other republics also visit for the purpose of purchasing various goods. The expenditures by the visiting population significantly exceed the expenditures of the Latvian population in other republics, and for this reason expenditures systematically exceed income in the balance of the monetary income and expenditures of the republic population. The exceeding of expenditures, along with the exceeding of the received money through mail orders and letters of credit over the amount sent out in 1965 was 6.6 percent of the total purchases, and in 1971-1975, 13.5 percent. In compiling the balance for the money income and expenditures of the population by social groups, the total purchases of goods and payment for services are corrected by subtracting the expenditures of the population from other republics. The same correction must be made in calculating the consumption fund of the population in order to correlate it to the real income of the citizens, while purchases by visitors must be considered as the exporting of goods.

Another urgent problem is the coordinating of the consumption fund and the real income of the population with the consumption and accumulation of nonproductive fixed capital. Not only the net product of each current year, but to an ever greater degree the social wealth embodied in the nonproductive fixed capital and the accumulated personal property of the citizens actually operate as an object of material consumption. The wear on the housing is considered directly as personal consumption, while the wear of other nonproductive assets such as buildings, equipment and supplies of nurseries, schools, VUZes, medical institutions, sociocultural and service installations, as well as the fixed capital of the consumer service sphere, the utility system, passenger transport and communications,

and so forth, is considered as the material expenditures of the service sphere. Together this comprises about 6 percent of the consumption fund. The wear on fixed capital is the consumption of social wealth created in a previous period and not the consumption of the product of the given year. The current accounting method is based on the fact that worn out fixed assets are in fact replaced by new ones from the product of the current year or are rebuilt by major overhaul. In determining the net accumulation, the portion of capital investments which compensates for the wear on functioning capital is excluded. Hence, a portion of the national income of the current period is considered consumed, although in a physical form the net product is embodied in new objects which go into consumption but are not consumed. Such a substitution is acceptable to the degree that the actual withdrawing of fixed assets corresponds to their amortization. If there is no such congruity, then it would be necessary periodically to correct the consumption fund and the accumulation fund for the preceding period.

The approach presently used in statistics cannot be considered the only correct one. In essence, the amortization of nonproductive capital characterizes only the consumption of a portion of value, while in kind, in its consumer value, the fixed capital enters national consumption not piecemeal but fully and completely. In analyzing the rise in the prosperity of the people, another indicator is employed, the total of current consumption and nonproduction accumulation for consumer purposes. In the Ninth Five-Year Plan, for example, it was over 80 percent of national income.

In terms of the property of the public accumulated as personal ownership, the statistics adhere to a different, simplified approach. All purchases of commodities, including consumer durables, are included in the consumption of the population as of the year of purchase. At the same time a portion of these purchases in essence forms an accumulation of the means of life, in increasing the consumer property of the citizens. This property is also an important characteristic of the standard of living, however in importance it differs substantially from current consumption. With the present level of material comfort, consideration of these differences is becoming ever more essential in analyzing the standard of living, as well as in forecasting demand and planning commodity turnover.

The statistical bodies have done significant work to assess the consumer property of the population. In Latvia, each year the accumulated social wealth, including the property of the citizens, is determined as a total and for the basic types. At the end of 1975, the nonproductive property of the citizens was estimated at 3,871,000,000 rubles, that is, it was 17 percent of the social wealth [36, p 202]. In comparison with 1965, it had doubled. However the accumulated property is accounted for at full value, without subtracting the wear, and is not reflected in the balance for the movement of national income (with the exception of the accumulation and consumption of individual residential buildings). The individual housing fund increased from 1965 through 1975 by 17 million rubles in terms of full

value. At the same time its wear has been estimated at an average of 16-17 million rubles a year, while the volume of individual construction and major repairs on the housing is 15-16 million rubles. This makes it possible to consider that the residual value of the privately owned housing has declined. An estimate of the residual value must also be made for other types of private property not accounted for in the accumulation fund. Along with accounting for national consumption according to the current method, it would be possible and advisable to account for the accumulation, current consumption (wear) and replacement of consumer durables which are privately owned by the citizens.

In terms of its purpose and essence, the accumulation of nonproduction property by the population does not differ from the accumulation of fixed capital in the sphere of social consumption. Either one increases the volume of goods used for the consumption of the population, and has as its source the net product of the corresponding year. At the same time, the consumption of these elements of social wealth does not have direct bearing on the production process during the given year, since the portion of net product which compensates for the withdrawn property does not necessarily correspond to its annual wear.

For assessing the real income of the population, various indicators could be used which differ in terms of the scope of the consumed goods: in the first place, an indicator considering current consumption and including the wear of the accumulated wealth, but without accumulation; secondly, an indicator which considers the consumption of the product of the given year, without considering the wear on the previously accumulated goods, but including the nonproduction accumulation; thirdly, an indicator considering all current consumption and all accumulation of consumer durables. In the presently employed indicator of the real income of the population, either approach to accumulation is combined inconsistently. In terms of the privately owned goods, it covers both consumption and accumulation, but in terms of the publically owned goods, only current consumption.

An urgent problem of national consumption is a rise in the role of services and the growth of their proportional amount in consumption. Even K. Marx pointed out that among the consumer goods there is always a certain quantity of services which increase the overall total of consumption. Since then the volume of services consumed by the population has increased many fold and their importance has risen. With the present-day demands of production and society on man and on the development of his personality, the satisfying of vital needs in no way is restricted to material consumption. A number of services in the system of education, public health, the housing and utility system and transportation have become absolutely essential elements in the reproduction of the labor force. The demands satisfied by various services, in keeping with the growth of the prosperity of the people, are holding an ever larger place in the system of social demands. Life has required a broadening of the deeply-rooted notions of consumption and a corresponding broadening of the real income indicators.

An indicator of the total volume of the consumption of material goods and services is used in the planning procedures for the standard of living of the population. In the literature, a more suitable term has been proposed, "expanded consumption" [55, pp 95-96]. The authors, relying on joint international research involving scientists from Hungary, the GDR, Italy, Poland, France and Czechoslovakia, have linked the use of this indicator with a broadening of the concept of national income. The article by V. N. Cherkovets proposes using the volume of expanded consumption as an indicator for the material expression of the goal of socialist production providing a quantitative definition for the basic economic law of socialism [66, pp 8-11].

Naturally, the growing consumption of services should be reflected in the real income of the population. The present-day indicator of real income is limited to the consumption of material goods and is viewed as a part of national income. This notion has been established and defended by V. F. Mayyer in arguing against attempts to include services in the concept of real income as this supposedly would mean a concession to vulgar political economy.

In our view, the expanded volume of consumption can be used in the calculation and analysis of real income even now, without broadening the concepts of material production, net product and national income. The net product of material production has always been and will be the material base for spiritual production and the production of services. The efficiency of labor in material production determines the limits of the expansion and functioning of the service sphere. But it is essential to bear in mind the duality of net product and its value form. Net product in the form of material consumer goods embodying the basic portion of social labor is also used by the workers in nonmaterial production. At the same time, another part of social labor in the form of services is used to satisfy the needs of the workers in the material production sphere. Regardless of whether these services are paid for by each consumer or by society as a whole, a portion of the value of social net product is used to support the service sphere. This value does not disappear without a trace, but rather is returned to the population in the form of services. Hence the consumption fund of net product, like value, is embodied both in material goods and in services, and this together comprises the value of the necessary fund of means of life for the production workers. At the same time, the consumption fund of net product, as an aggregate of material goods, is utilized not only by the workers of material production, but also by the entire population. If only material goods are considered real income, then this indicator should be calculated not on a per capita basis but rather in terms of the workers of material production who create the physical basis of the very fund of the means of life. Such an indicator would describe necessary product from the viewpoint of its production. But if the real income of the entire population is calculated, then it is essential to use the concept of an expanded volume of consumption. Such an indicator for real income would characterize the necessary product from the viewpoint of consumption, and would respectively reflect

material goods and services in the composition of the fund of the means of life.

There are certain problems related to personal consumption. The material expenditures of the scientific institutions, the financial-credit system and the state administration comprise a separate group in the classification of the consumption fund.

Common to the designated group of expenditures is merely the fact that they are related to the nonproduction sphere, but, in contrast to the consumption fund, are aimed at satisfying the needs of all society directly. All these expenditures differ fundamentally in terms of their purpose, the impact on the production process and the development trends. These would include those expenditures which cannot indisputably be termed nonproductive, for example, the expenditures on science.

In the data published in comparable prices on the use of national income by functional purpose [45, p 566], a different classification is used with the allocations for science and expenditures on defense being put into separate groups, but the expenditures on administration are shown along with the public consumption funds.

Under the conditions of the on-going scientific and technical revolution, special attention must be paid to the expenditures on science. The role of science and its place in the system of social production are changing, and science is becoming a direct productive force. Attention should be paid to the proposals voiced in the literature to broaden the notion of material production, including in this sphere as well the scientific research institutions and organizations directly related to production [49, p 82]. This problem is becoming particularly urgent in line with the creation with the scientific-production associations and the introduction of the elements of economic accountability at the industrial associations.

In the opinion of B. N. Plyshevskiy, the possibility of directly transferring expenditures to the cost of material products could serve as the criterion for delimiting productive and nonproductive activities in the scientific sphere. With such a solution to the problem, the cost of the product from the corresponding sectors would not change, but the cost of the net product would have to be reduced by the amount of the material expenditures of the scientific organizations. Such a proposal, in our view, is inconsistent. If scientific activities are recognized as productive, then their product must also be equated to a material product. This product, that is, the developed and experimentally tested new articles, new production methods and other innovations embodied in scientific reports, in technical specifications, calculations, blueprints, and so forth, is no less real and material than, for example, books, recordings or films the creation of which is included in the material production sphere.

The incorporation of "applied" scientific works within the production sphere would increase the aggregate product in the amount of the actual

evaluation of the scientific product and would require the calculating of the net product of the scientific sphere (minus the material expenditures). Furthermore, in calculating the net product of the production spheres in which the results of scientific research are utilized, the corresponding portion of the evaluation of the scientific product would have to be classified in the material expenditures, thereby reducing the net product of production per se. The increase in the total amount of net product in the national economy as a whole would depend upon the effectiveness of the scientific developments and upon the scale of their introduction.

All the expenditures of the scientific research organizations cannot and should not immediately be considered as part of current expenditures, as B. N. Plyshevskiy has proposed. In our opinion they should be equated to the expenditures of future periods and accounted for in the accumulation fund. In this regard, complicated problems arise in the area of accounting, writing off and distributing the expenditures on scientific research, but these, however, must not be considered insoluble. For working them out it is essential first of all to improve the accounting of expenditures on science and the introduction of its results. These expenditures should be more fully shown in the statistics, in particular in terms of the scientific sectors, the elements of expenditures, and the financing sources.

For the humanities, where the research results are not directly introduced into production, the expenditures should be considered in the corresponding sectors of sociocultural expenses, that is, education, culture and public health. Only the expenditures on the social sciences should be accounted for with the expenditures on the state administration.

In the system of socialist relationships, a special place is held by the financial and credit institutions such as the Gosbank, Stroybank and USSR Gosstrakh [Main Administration of State Insurance], which carry out the economic organizational functions of the state. However the designated institutions cannot be considered as part of the superstructure. Financial relations are a component part of the system of socialist production relations. The movement of financial resources and monetary circulation, in acting as the intermediates for production and the distribution of goods, comprise a necessary part of socialist social production, and require definite expenditures of socially necessary labor. The separating of financial activities from production directly, and the isolating of them in a separate sphere does not change the basic, reproduction function of finances. In the same manner that the financial personnel of each socialist enterprise is a portion of the aggregate worker and is considered as among the production personnel, on a scale of the entire society, the financial institutions should also be considered in the production sphere. They partially serve both the population as well as the purely political bodies of the state, however their basic purpose comes down to the serving of production. The activities of the financial bodies under socialism are productive to no less degree than the activities of the sectors of commodity circulation which out of the considerations of the predominance of production functions are considered completely in the

production sphere. It would also be logical to consider the financial institutions as part of production.

The "services" of the financial institutions cannot be equated to a material product and the amount of national income increased correspondingly, as is done in bourgeois theory and statistics. Financial activities increase neither the gross nor the net product. In recognizing the participation of these activities in social production, we should recognize their embodiment in that volume of product from material production which is produced in a specific period. For finances, in our view, it is possible to apply the proposal made by B. N. Plyshevskiy about the scientific institutions, that is, the net product is accounted for in terms of the sectors of material production, but the expenditures of the financial sphere are included in national economic product costs. In this instance the material expenditures of the financial institutions would additionally be excluded from the volume of gross product, that is, the net product would be somewhat reduced. Correspondingly, the consumption fund would be reduced by the same amount.

In supporting the broader interpretation proposed by certain authors for labor productivity under socialism [23, pp 6-10 and elsewhere], we assume that the economic administrative apparatus should also be included in the production sphere. The planning of the national economy, the collection and processing of information, and control and operational regulation are management functions without which social production directly could not be carried out. Hence, the necessary management expenditures in essence are also a portion of the socially necessary production outlays, and are not purely unproductive expenditures which society should simply cover out of the production results. Expenditures on production management should include the outlays of such bodies as the Gosplan and the TsSU, the state committees for material-technical supply and construction, the sectorial ministries and departments, as well as the corresponding middle-management bodies. The excluding of the material expenditures of this portion of the state bodies in calculating net product would also somewhat reduce the total of national income, and respectively, the consumption fund.

According to the current accounting methods, expenditures on state administration include, in our opinion incorrectly, the expenditures of the road system, that is: the maintenance, current and medium repairs on roads and bridges; a significant amount of amortization is added to the current material expenditures. In Latvia, the expenditures and amortization of the road system comprise 88 percent of all material expenditures on administration. In actuality, the listed expenditures comprise directly the expenditures of the national economy itself and not the administration (in terms of their purpose, these are a portion of the expenditures of motor transport). Incidentally, in labor statistics the employees of the road system are accounted for in the transport sector. The including of the material expenditures of the road system as part of the management and administrative expenses has come, obviously, from the obsolete classification of the expenditures of the state budget, and is, in our view, an

anacronysm which must be eliminated. The material expenditures of the road system should be excluded from both the state consumption fund and from the gross product of transportation, and this would correspondingly reduce the amount of net product. The proposed changes would also bring the evaluation of net product and national income closer to the real amount.

The consumption fund of the state should account only for those expenditures of the state apparatus which are related to the elements of the superstructure of a society, that is, political and legal functions, the maintaining of public order, and defense.

At present, the problems of improving the classification of the state budget are being discussed, and a new scheme for accounting for budget income and expenditures is being prepared. This should provide complete coordination with the aggregate national economic financial plan and the national economic balance. At the same time it is essential to alter the classification of consumption in the national economic balance in order to provide a complete unity of the system of balances which reflect the creation and movement of the value of net product from all social production, and at the same time, the net product of the Union republics.

CONCLUSION

The analysis of net product as a category of social production directly and as a part of aggregate social product which under socialist conditions assumes a commodity form and is measured by value, shows the unity and internal contradictoriness of the physical content of net product and its value form, national income. The balancing of these two aspects of net product under socialism is not achieved automatically and cannot be turned over to spontaneous regulation by a market mechanism. Their balancing should be permanent and achieved by conscious regulation of the national economic proportions. This applies fully to both the net product and the national income of the Union socialist republics. The regulation of the economic relationships of the Union republics, the placement of the productive forces and the evening out of differences in their economic development level should ensure a full reconciliation of national and territorial economic interests. The system of national economic accounting should serve these tasks.

The described method of aggregate national economic accounting which employs a system of accounts and the principle of double entry of an operation would provide a more profound analysis of economic growth, in contributing to the soundness and complete coordination of the aggregate national economic plans and balances. This method can be employed for further improving the national economic balance of the Union republics in using it in close unity with the intersectorial balances.

The unified national economic system of accounting and reporting is one of the most important advantages of socialism, and this should be used for the good of the Soviet people under the conditions of developed socialism. The 24th CPSU Congress posed a task of historical importance, that is, to organically combine the achievements of the scientific and technical revolution with the advantages of the socialist economic system. In terms of national economic accounting and planning, the scientific and technical revolution is manifested in a dual manner. On the one hand, the present-day conditions require the plan development of science and the accelerated introduction of its achievements into production. On the other, scientific and technical progress is also being introduced into the very sphere of accounting and management, making profound qualitative changes in the management system on the basis of modern electronic computers. The

increased technical capabilities and the greater demands of society on plan elaboration determine the direction for the development of the automated planning and management systems, and these are already being created. The national economic balance of each Union republic comprises a subsystem in the unified and integrated system of the USSR national economic balance.

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